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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                  Zentralblatt
 NEWS  3  OCT 19  BEILSTEIN updated with new compounds
 NEWS  4  NOV 15  Derwent Indian patent publication number format enhanced
 NEWS  5  NOV 19  WPIX enhanced with XML display format
 NEWS  6  NOV 30  ICSD reloaded with enhancements
 NEWS  7  DEC 04  LINPADOCDB now available on STN
 NEWS  8  DEC 14  BEILSTEIN pricing structure to change
 NEWS  9  DEC 17  USPATOLD added to additional database clusters
 NEWS 10  DEC 17  IMSDRUGCONF removed from database clusters and STN
 NEWS 11  DEC 17  DGENE now includes more than 10 million sequences
 NEWS 12  DEC 17  TOXCENTER enhanced with 2008 MeSH vocabulary in
                  MEDLINE segment
 NEWS 13  DEC 17  MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
 NEWS 14  DEC 17  CA/CAplus enhanced with new custom IPC display formats
 NEWS 15  DEC 17  STN Viewer enhanced with full-text patent content
                  from USPATOLD
 NEWS 16  JAN 02  STN pricing information for 2008 now available
 NEWS 17  JAN 16  CAS patent coverage enhanced to include exemplified
                  prophetic substances
 NEWS 18  JAN 28  USPATFULL, USPAT2, and USPATOLD enhanced with new
                  custom IPC display formats
 NEWS 19  JAN 28  MARPAT searching enhanced
 NEWS 20  JAN 28  USGENE now provides USPTO sequence data within 3 days
                  of publication
 NEWS 21  JAN 28  TOXCENTER enhanced with reloaded MEDLINE segment
 NEWS 22  JAN 28  MEDLINE and LMEDLINE reloaded with enhancements
 NEWS 23  FEB 08  STN Express, Version 8.3, now available
 NEWS 24  FEB 20  PCI now available as a replacement to DPCI
 NEWS 25  FEB 25  IFIREF reloaded with enhancements
 NEWS 26  FEB 25  IMSPRODUCT reloaded with enhancements
 NEWS 27  FEB 29  WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                  U.S. National Patent Classification


 NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
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FILE 'HOME' ENTERED AT 18:23:05 ON 13 MAR 2008

=> file reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY     SESSION
FULL ESTIMATED COST                                         0.42        0.42

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=>
Uploading C:\Program Files\Stnexp\Queries\10562730-c1-2.str

L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1                STR
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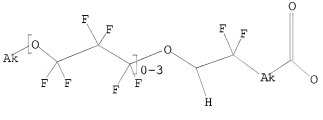


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Structure attributes must be viewed using STN Express query preparation.


=> s l1
SAMPLE SEARCH INITIATED 18:24:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     9319 TO ITERATE

 21.5% PROCESSED     2000 ITERATIONS                                 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
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SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       180594 TO   192166
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 18:24:38 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   184242 TO ITERATE

100.0% PROCESSED   184242 ITERATIONS                                41 ANSWERS
SEARCH TIME: 00.00.03

L3           41 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   178.36     178.78

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FILE LAST UPDATED: 12 Mar 2008  (20080312/ED)

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They are available for your review at:

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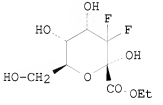
=> s l3
L4           20 L3

=> s l4 not py > 2004
      4348315 PY > 2004
L5           17 L4 NOT PY > 2004

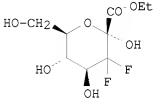
=> d l5 ibib abs hitstr 1-
YOU HAVE REQUESTED DATA FROM 17 ANSWERS - CONTINUE? Y/(N):y

L5   ANSWER 1 OF 17  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2004:616738  CAPLUS
DOCUMENT NUMBER:          141:277835
TITLE:                    Syntheses of ethyl 3-deoxy-3,3-difluoro-D-arabino-
                          heptulosonate and analogues
AUTHOR(S):                Li, Yuan; Drew, Michael G. B.; Welchman, Elizabeth V.;
```

Shirvastava, Rajeev K.; Jiang, Shende; Valentine, Roy; Singh, Gurdial
CORPORATE SOURCE: Department of Chemistry, University of Sunderland, Sunderland, SR1 3SD, UK
SOURCE: Tetrahedron (2004), 60(31), 6523-6531
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:277835
GI



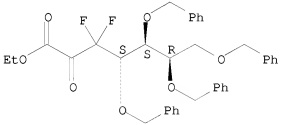
I



II

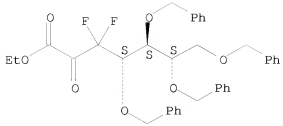
AB The difluorinated analogs of 3-deoxy-D-arabino-heptulosonic acid (DAH) I, II and its enantiomer have been synthesized from D- and L-erythrose via a Reformatsky reaction which gave a mixture of diastereoisomers in favor of the anti isomer.
IT 841262-65-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of difluorinated analogs of 3-deoxy-D-arabino-heptulosonic acid from D- and L-erythrose via a Reformatsky reaction)
RN 841262-65-5 CAPLUS
CN D-lyxo-2-Heptulosonic acid, 3-deoxy-3,3-difluoro-4,5,6,7-tetrakis-O-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



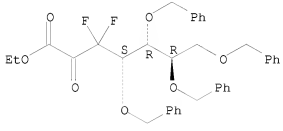
IT 760973-09-9P 760973-16-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of difluorinated analogs of 3-deoxy-D-arabino-heptulosonic acid from D- and L-erythrose via a Reformatsky reaction)
RN 760973-09-9 CAPLUS
CN L-ribo-2-Heptulosonic acid, 3-deoxy-3,3-difluoro-4,5,6,7-tetrakis-O-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 760973-16-8 CAPLUS
CN D-arabino-2-Heptulosonic acid, 3-deoxy-3,3-difluoro-4,5,6,7-tetrakis-O-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

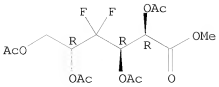
Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:511439 CAPLUS
DOCUMENT NUMBER: 141:190987
TITLE: A stereodivergent asymmetric approach to difluorinated aldonic acids
AUTHOR(S): Audouard, Christophe; Barsukov, Igor; Fawcett, John; Griffith, Gerry A.; Percy, Jonathan M.; Pintat, Stephane; Smith, Clive A.
CORPORATE SOURCE: Department of Chemistry, University of Leicester, Leicester, LE1 7RH, UK
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2004), (13), 1526-1527
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:190987
AB A (bromodifluoromethyl)alkyne has been deployed in a stereoselective route to difluorinated aldonic acid analogs, in which a Sharpless asym. dihydroxylation reaction and diastereoisomer separation set the stage for Ph group oxidation
IT 740839-82-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(asym. synthesis of difluorinated aldonic acid analogs via stereoselective reduction, Sharpless dihydroxylation, diastereoisomer separation, and oxidative cleavage)
RN 740839-82-1 CAPLUS
CN D-xylo-Hexonic acid, 4-deoxy-4,4-difluoro-, methyl ester, tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



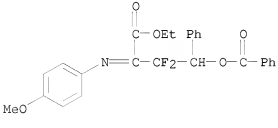
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:827052 CAPLUS
DOCUMENT NUMBER: 140:16390
TITLE: Mg-Promoted Double Silylation of Trifluoroacetimidoyl Chlorides. A New Entry to the Fluorinated Dianion Equivalents
AUTHOR(S): Kobayashi, Takeshi; Nakagawa, Takashi; Amii, Hideki; Uneyama, Kenji
CORPORATE SOURCE: Department of Applied Chemistry, Faculty of Engineering, Okayama University, Okayama, 700-8530, Japan
SOURCE: Organic Letters (2003), 5(23), 4297-4300
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:16390

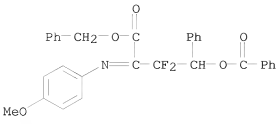
AB A Mg(0)/Me3SiCl system was found to be effective for the preparation of a novel fluorinated dianion equivalent A one-pot reaction sequence involving reductive C-F and C-Cl bond cleavage reactions of trifluoroacetimidoyl chlorides afforded bis-silylated difluoroenamines. Subsequent carbon-carbon bond-forming reactions of the bis(silyl)enamines with two kinds of electrophiles gave a variety of difluorinated imines.

IT 629625-57-6P 629625-58-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of difluorinated imines via magnesium-promoted double silylation of trifluoroacetimidoyl chlorides followed by reaction of bis(silyl)enamines with electrophiles)

RN 629625-57-6 CAPLUS
CN Benzenebutanoic acid, γ-(benzoyloxy)-β,β-difluoro-α-[(4-methoxyphenyl)imino]-, ethyl ester (CA INDEX NAME)

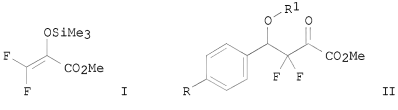


RN 629625-58-7 CAPLUS
CN Benzenebutanoic acid, γ-(benzoyloxy)-β,β-difluoro-α-[(4-methoxyphenyl)imino]-, phenylmethyl ester (CA INDEX NAME)



REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

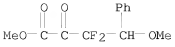
L5 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:675024 CAPLUS
DOCUMENT NUMBER: 138:122444
TITLE: Methyl 3,3-difluoro-2-trimethylsilyloxyacrylate: preparation and Mukaiyama-type aldol condensation as a novel route to β,β-difluoro-α-keto ester derivatives
AUTHOR(S): Jiang, Biao; Zhang, Xiaobing; Shi, Guoqiang
CORPORATE SOURCE: Shanghai Institute of Organic Chemistry, State Key Laboratory of Organometallic Chemistry, Chinese Academy of Sciences, Shanghai, 200032, Peop. Rep. China
SOURCE: Tetrahedron Letters (2002), 43(38), 6819-6821
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:122444
GI



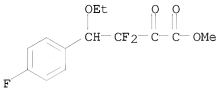
AB Mukaiyama-type aldol condensation of arylaldehyde acetals occurs smoothly with Me 3,3-difluoro-2-trimethylsilyloxyacrylate (I, derived from Et 3,3-difluoro-2-benzyloxyacrylate) when catalyzed by a Lewis acid, allowing preparation of 4-alkyloxy-3,3-difluoro-2-keto esters II (R = H, Cl, OMe, NO2, R1 = Me; R = F, R1 = Et).

IT 491612-53-4P 491612-54-5P 491612-55-6P
491612-56-7P 491612-57-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of α-keto-β,β-difluoro esters via debenzylation/silylation of α-benzyloxy-β,β-difluoroacrylate followed by Lewis acid-catalyzed Mukaiyama-type aldol condensation with di-Me acetals of aromatic aldehydes)

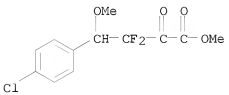
RN 491612-53-4 CAPLUS
CN Benzenebutanoic acid, β,β-difluoro-γ-methoxy-α-oxo-, methyl ester (CA INDEX NAME)



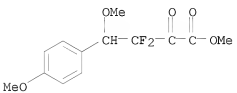
RN 491612-54-5 CAPLUS
CN Benzenebutanoic acid, γ-ethoxy-β,β,4-trifluoro-α-oxo-, methyl ester (CA INDEX NAME)



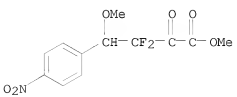
RN 491612-55-6 CAPLUS
CN Benzenebutanoic acid, 4-chloro-β,β-difluoro-γ-methoxy-α-oxo-, methyl ester (CA INDEX NAME)



RN 491612-56-7 CAPLUS
CN Benzenebutanoic acid, β,β-difluoro-γ,4-dimethoxy-α-oxo-, methyl ester (CA INDEX NAME)



RN 491612-57-8 CAPLUS
CN Benzenebutanoic acid, β,β-difluoro-γ-methoxy-4-nitro-α-oxo-, methyl ester (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:1324 CAPLUS
DOCUMENT NUMBER: 136:325124

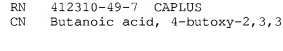
TITLE: Novel rearrangement of secondary alkoxyalkyl radicals during addition to a double bond. Steric shielding in the formation of tertiary alkoxyethyl radicals

AUTHOR(S): Paleta, Oldrich; Hajduch, Jan; Bohm, Stanislav
CORPORATE SOURCE: Department of Organic Chemistry, Prague Institute of Chemical Technology, Prague, 16628, Czech Rep.

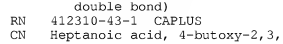
SOURCE: Tetrahedron Letters (2002), 43(3), 481-485
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:325124

AB The participation of a 1,3-hydrogen shift in initially formed secondary alkoxyethyl radicals R1R2CH-O-CH$\sqrt{}$-CH3 during their free-radical chain addns. to Me 2,3,3-trifluoroacrylate has been confirmed using a deuterium marked additive. Indirect evidence has been obtained for a partial 1,3-hydrogen shift in secondary radicals CH3(CH2)n-CH$\sqrt{}$-O-CH3 to primary radicals CH3(CH2)n-CH2-O-CH2$\sqrt{}$. Initial formation of tertiary alkoxyethyl radicals R1R2C$\sqrt{}$-O-CHR3R4 in the propagation step was not observed due to steric factors.

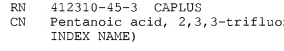
IT 412310-49-7P
RL: BYP (Byproduct); PREP (Preparation)
(rearrangement of secondary alkoxyalkyl radicals during addition to a double bond)
RN 412310-49-7 CAPLUS
CN Butanoic acid, 4-butoxy-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)



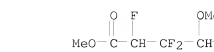
IT 412310-43-1P 412310-45-3P 412310-48-6P
412310-50-0P 412310-52-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(rearrangement of secondary alkoxyalkyl radicals during addition to a double bond)
RN 412310-43-1 CAPLUS
CN Heptanoic acid, 4-butoxy-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)



RN 412310-45-3 CAPLUS
CN Pentanoic acid, 2,3,3-trifluoro-4-(1-methylethoxy)-, methyl ester (CA INDEX NAME)

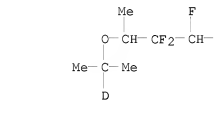


RN 412310-48-6 CAPLUS
CN Heptanoic acid, 2,3,3-trifluoro-4-methoxy-, methyl ester (CA INDEX NAME)



RN 412310-50-0 CAPLUS
CN Pentanoic acid, 4-(1,1-dimethylethoxy)-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)

RN 412310-52-2 CAPLUS
CN Pentanoic acid, 2,3,3-trifluoro-4-(1-methylethoxy-1-d)-, methyl ester (9CI) (CA INDEX NAME)



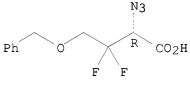
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:481438 CAPLUS
DOCUMENT NUMBER: 135:210736
TITLE: A Novel Strategy for the Synthesis of ω-Functionalized Perfluoroalkyl Iodides
AUTHOR(S): Szlavik, Zoltan; Tarkanyi, Gabor; Skribanek, Zsolt; Vass, Elemer; Rabai, Jozsef
CORPORATE SOURCE: Department of Organic Chemistry, Eoetvoes University, Budapest, H-1518, Hung.
SOURCE: Organic Letters (2001), 3(15), 2365-2366
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:210736
AB The applicability of telomeric alcs., H(CF2CF2)nCH2OH [n = 5], for the synthesis of ω-functionalized F-alkylating reagents, I(CF2CF2)n-1CH2OAc, is demonstrated. The key steps of this optimized method are the activation of the HCF2- terminus in a lithiation process yielding (Z+E)-BuCF:CF(CF2CF2)4CH2OH [I, 86%] and a successive ozonation reaction in trifluoroethanol media affording CF3CH2O2C(CF2CF2)4CH2OH [93%]. This compound underwent addition reaction with 1-undecene to give Me(CH2)8CHICH2(CF2)8CH2OAc. Highly stereospecific ozone cleavage of (E)-I was observed in methanol due to the competitive oxidation of the solvent.
IT 358352-39-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of functionalized polyfluoroalkyl acetates)
RN 358352-39-3 CAPLUS
CN Decanoic acid, 10-(acetyloxy)-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluoro-, monosilver(1+) salt (9CI) (CA INDEX NAME)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

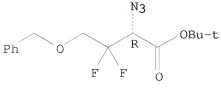
L5 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:330478 CAPLUS
DOCUMENT NUMBER: 129:54564
TITLE: Synthesis of β-difluorine-containing amino acids
AUTHOR(S): Li, Keqiang; Leriche, Caroline; Liu, Hung-Wen
CORPORATE SOURCE: Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (1998), 8(9), 1097-1100
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:54564
AB A convenient strategy was developed to prepare several β,β-difluoroamino acids. 5,6-O-isopropylidene-L-isoascorbic acid was the starting material for the syntheses of 3,3-difluoro-L-homocysteine, 3,3-difluoro-L-homoserine and 3,3-difluoro-L-methionine. This approach has the potential to synthesize other β,β-difluoroamino acids.
IT 208755-96-8P 208755-97-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of β,β-difluoroamino acids)
RN 208755-96-8 CAPLUS
CN Butanoic acid, 2-azido-3,3-difluoro-4-(phenylmethoxy)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 208755-97-9 CAPLUS
CN Butanoic acid, 2-azido-3,3-difluoro-4-(phenylmethoxy)-, 1,1-dimethylethyl ester, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:250727 CAPLUS
DOCUMENT NUMBER: 126:240583
TITLE: Magnetic recording media and the apparatus using them
INVENTOR(S): Koike, Asako; Shoji, Saburo; Nakakawaji, Takayuki; Murakami, Juko
PATENT ASSIGNEE(S): Hitachi Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09035252	A	19970207	JP 1995-181415	19950718

PRIORITY APPLN. INFO.: JP 1995-181415 19950718

AB Magnetic recording media having a surface layer formed on a recording layer in which information can be recorded or regenerated by a magnetic head comprise forming a lubricating layer on the surface of recording layer, where the lubricating layer contains the mols. having an adsorption-increasing portion at the terminal end for increasing the adsorption between the terminal and substrate and an aggregation (cohesion)-increasing portion in the middle part of mol. chain for increasing the cohesive energy between adjacent mols., two mol. portions comprising ≥1 of organic compds. selected from aromatic ring, condensed ring or N-containing aromatic ring compds.

IT 188432-12-4 188432-21-5
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(film; magnetic recording media with recording layer coated by lubricant)

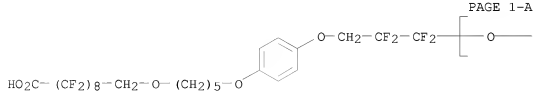
RN 188432-12-4 CAPLUS

CN Benzenamine, 2-methoxy-, compd. with α-[3-[4-[[5-[(9-carboxy-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluorononyl)oxy]pentyl]oxy]phenoxy]-1,1,2,2-tetrafluoropropyl]-ω-(heptafluoropropoxy)poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

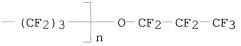
CM 1

CRN 188432-11-3
CMF (C3 F6 O)n C27 H19 F27 O6
CCI PMS

PAGE 1-A



PAGE 1-B



CM 2

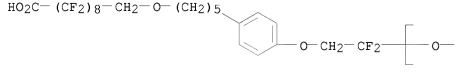
CRN 90-04-0
CMF C7 H9 N O

RN 188432-21-5 CAPLUS
CN Benzenamine, 2-methoxy-, compd. with α-[2-[4-[5-[(9-carboxy-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluorononyl)oxy]pentyl]phenoxy]-1,1-difluoroethyl]-ω-[2-[4-[5-[(9-carboxy-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluorononyl)oxy]pentyl]phenyl]-1,1,2,2-tetrafluoroethoxy]poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)] (2:1) (9CI) (CA INDEX NAME)

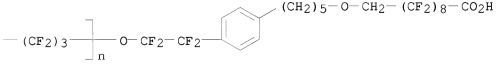
CM 1

CRN 188432-20-4
CMF (C3 F6 O)n C46 H36 F38 O8
CCI PMS

PAGE 1-A



PAGE 1-B



CM 2

CRN 90-04-0
CMF C7 H9 N O

L5 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:740928 CAPLUS
DOCUMENT NUMBER: 123:127788
TITLE: Mesomorphic compound, liquid crystal composition

containing the compound, liquid crystal device using the composition, liquid crystal apparatus and display method.

INVENTOR(S): Shinichi, Nakamura; Takao, Takiguchi; Takashi, Iwaki; Takeshi, Togano; Yoko, Kosaka

PATENT ASSIGNEE(S): Canon K. K., Japan

SOURCE: Eur. Pat. Appl., 84 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 640676	A1	19950301	EP 1994-113508	19940830
EP 640676	B1	19990120		
R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 07097354	A	19950411	JP 1993-237215	19930831
JP 3230024	B2	20011119		
JP 07133244	A	19950523	JP 1993-243580	19930906
JP 3216752	B2	20011009		
US 5653913	A	19970805	US 1996-628446	19960405

PRIORITY APPLN. INFO.: JP 1993-237215 A 19930831
JP 1993-243580 A 19930906
US 1994-297840 B1 19940830

OTHER SOURCE(S): MARPAT 123:127788

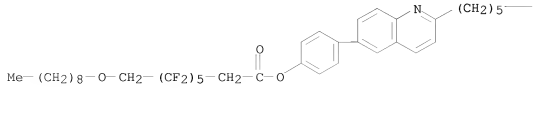
AB A mesomorphic compound CmH2m+1O(CH2)n(CH2)p(CH2)q-Y1-A1-R1 [R1 = H, halogen, CN, or a linear, branched or cyclized alkyl group having 1-30 C atoms capable of including at least one -CH2- group which can be replaced with -O-, -S-, -CO-, -CH(Cl)-, -CH(CN)-, -CCH3(CN)-, -CH:CH- or -C.tplbond.C- provided that heteroatoms are not adjacent to each other and capable of including at least one H which can be replaced with F; m, n, p and q = 1-16 provided that m + n + p + q ≤ 18; Y1 denotes a single bond, -O-, -CO-, -COO-, -OCO-, -CH:CH or -C.tplbond.C-; A1 = -A2-, -A2-X1-A3- or -A2-X1-A3-X2-A4 in which A2, A3 and A4 independently denote a divalent cyclic group; X1, X2 = a single bond, -COO-, -OCO-, -CH2O-, -OCH2-, -CH2CH2-, -CH:CH- or -C.tplbond.C-] having ≥2 ether groups between alkylene groups in a specific alkoxy perfluoroalkyl terminal group is suitable as a component for a liquid crystal composition providing improved response characteristics and a high contrast. A liquid crystal device is constituted by disposing the liquid crystal composition between a pair of substrates. The liquid crystal device is used as a display panel constituting a liquid crystal apparatus providing good display characteristics.

IT 166439-53-8
RL: MOA (Modifier or additive use); USES (Uses)
(perfluoroalkyl mesomorphic compound for liquid crystal composition)

RN 166439-53-8 CAPLUS

CN Octanoic acid, 3,3,4,4,5,5,6,6,7,7-decafluoro-8-(nonyloxy)-, 4-(2-hexyl-6-quinolinyl)phenyl ester (CA INDEX NAME)

PAGE 1-A



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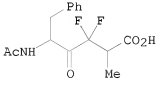
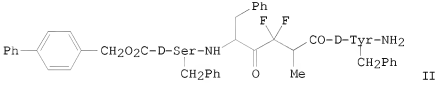
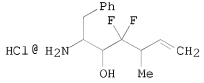
L5 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:427103 CAPLUS
DOCUMENT NUMBER: 117:27103
TITLE: Synthesis and N- and C-terminal extension of peptidyl α,α-difluoroalkyl ketones
AUTHOR(S): Hong, Wonpyo; Dong, Liwen; Cai, Zhenhong; Titmas, Richard
CORPORATE SOURCE: IGEN, Inc., Rockville, MD, 20852, USA
SOURCE: Tetrahedron Letters (1992), 33(6), 741-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 117:27103
GI



I



II



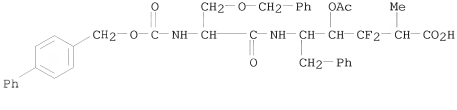
III

AB The synthesis of peptidyl α,α-difluoroalkyl ketones I and II is described. The key intermediate III can be extended at not only the C-terminal but also the N-terminal.

IT 140195-69-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and peptide coupling of, with D-tyrosinamide derivative)

RN 140195-69-3 CAPLUS

CN Benzenehexanoic acid, γ-(acetyloxy)-δ-[[2-[[([1,1'-biphenyl]-4-ylmethoxy)carbonyl]amino]-1-oxo-3-(phenylmethoxy)propyl]amino]-β,β-difluoro-α-methyl- (CA INDEX NAME)

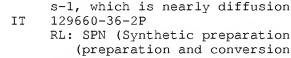


L5 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:547802 CAPLUS
DOCUMENT NUMBER: 113:147802
TITLE: Structure-activity studies of fluoroketone inhibitors of α-lytic protease and human leukocyte elastase
AUTHOR(S): Govardhan, Chandrika P.; Abeles, Robert H.
CORPORATE SOURCE: Grad. Dep. Biochem., Brandeis Univ., Waltham, MA, 02254, USA
SOURCE: Archives of Biochemistry and Biophysics (1990), 280(1), 137-46
CODEN: ABBIA4; ISSN: 0003-9861
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of peptidyl fluoroketones that reversibly inhibit the serine proteases human leukocyte elastase (HLE) and α-lytic protease (α-LP) were synthesized. Ac-ambo-AlaCF3 inhibits HLE and α-LP with Kis of 2.4 and 15 mM, resp. The effects of structural variations on this parent compound on Ki and the kinetics of inhibition were studied. The acetyl group was replaced by the tripeptide Z-L-Ala-L-Ala-L-Pro to yield the tetrapeptide trifluoroketone (TFK) Z-L-Ala-L-Ala-L-Pro-ambo-AlaCF3 (I). This extension reduced Ki 3500-fold for HLE and 3000-fold for α-LP. Removal of a F atom from a TFK decreases Ki .apprx.15-30-fold with both enzymes. Replacement of one atom of I by a residue (-CH2-CH2-COLeuOMe) (II) which can interact with the S'1 and S'2 subsites decreased Ki 30-fold for HLE and 150-fold for α-LP compared to Z-L-Ala-L-Ala-L-Pro-ambo-AlaCF2H. The Ki of II for HLE is approx. equal to that of trifluoroketone I. For α-LP Ki of II is 10-fold lower than that for the trifluoroketone I. Inhibitors with Ki values <10-7M exhibit slow binding kinetics. By analogy to cholinesterases and chymotrypsin, it is likely that these enzymes combine with the keto form of the inhibitor to form the enzyme-inhibitor complex. Therefore, Kon and Ki were corrected for the ketone concentration The corrected kon values for the slow binding inhibitors are in most cases less than diffusion controlled, ranging between 8.2 + 104 and 4.68 + 106 M-1 s0-1. An exception is Z-L-Ala-L-Ala-L-Pro-ambo-ValCF3 where kon = 9 + 107 M-1 s-1, which is nearly diffusion controlled.

IT 129660-36-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion to nitro alc.)

RN 129660-36-2 CAPLUS
CN Pentanoic acid, 4,4-difluoro-5-hydroxy-5-methoxy-, methyl ester (CA INDEX NAME)



L5 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1987:85059 CAPLUS
DOCUMENT NUMBER: 106:85059
TITLE: Amino acid and peptide derivatives as peptidase inhibitors
PATENT ASSIGNEE(S): Merrell Dow Pharmaceuticals, Inc., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61183253	A	19860815	JP 1986-21371	19860204
JP 2529825	B2	19960904		
AU 8652881	A	19860807	AU 1986-52881	19860131
AU 600226	B2	19900809		
ZA 8600746	A	19860924	ZA 1986-746	19860131
IL 77748	A	19911121	IL 1986-77748	19860131
CA 1341029	C	20000620	CA 1986-500832	19860131
DK 8600515	A	19860805	DK 1986-515	19860203
FI 8600484	A	19860805	FI 1986-484	19860203
FI 94254	B	19950428		
FI 94254	C	19950810		
NO 8600371	A	19860805	NO 1986-371	19860203
NO 169543	B	19920330		
NO 169543	C	19920708		
HU 40142	A2	19861128	HU 1986-467	19860203
HU 207102	B	19930301		
CN 86101268	A	19870204	CN 1986-101268	19860203
ES 551597	A1	19871116	ES 1986-551597	19860203
EP 195212	A2	19860924	EP 1986-101437	19860204
EP 195212	A3	19881005		
EP 195212	B1	19931124		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 97652	T	19931215	AT 1986-101437	19860204
ES 553504	A1	19871016	ES 1986-553504	19860326
ES 553505	A1	19871016	ES 1986-553505	19860326
US 5496927	A	19960305	US 1994-248847	19940525
US 5849866	A	19981215	US 1995-481666	19950607
US 6130315	A	20001010	US 1998-139009	19980824

PRIORITY APPLN. INFO.:

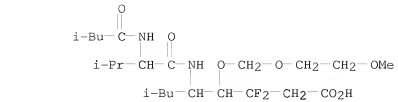
US 1985-697987	A	19850204
EP 1986-101437	A	19860204
US 1986-874721	B1	19860616
US 1988-267758	B1	19881101
US 1989-372162	B2	19890627
US 1990-540033	B1	19900619
US 1992-980141	B1	19921123
US 1993-102522	B1	19930804
US 1994-248847	A3	19940525
US 1995-481666	A3	19950607

AB R1NHCHR2COX [R1 = H, amino protecting group, amino acid residue, peptide residue; R2 = side chain of an amino acid; X = H, (un)substituted fluoroalkyl, etc.], useful as peptidase inhibitors (no data), were prepared Thus, CH2:CHCH2CF2CH(OH)CH(NH2)CH2CHMe2 was condensed with N-isovalerylvaline in THF containing dicyclohexylcarbodiimide at 23° for 15 h to give N1-(3,3-difluoro-2-hydroxy-1-isobutyl-5-hexenyl)-N2-isovalerylvalinamide.

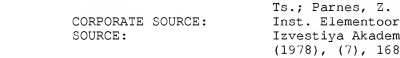
IT 106771-24-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as peptidase inhibitor)

RN 106771-24-8 CAPLUS

CN Octanoic acid, 3,3-difluoro-4-[(2-methoxyethoxy)methoxy]-7-methyl-5-[[3-methyl-2-[(3-methyl-1-oxobutyl)amino]-1-oxobutyl]amino]- (CA INDEX NAME)



L5 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:529011 CAPLUS
DOCUMENT NUMBER: 89:129011
ORIGINAL REFERENCE NO.: 89:19953a,19956a
TITLE: Reduction of perfluorocarboxylic acid anhydrides to 1,1-dihydroperfluoro alcohols
AUTHOR(S): Kolomnikova, G. D.; Kalinkin, M. I.; Tskhurbaeva, Z. Ts.; Parnes, Z. N.; Kursanov, D. N.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1978), (7), 1681-3
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Et3SiH reduced (RCO)2O [I; R = CF3, C3F7; R2 = (CF2)3] to the corresponding RCH2OH and HO2C(CF3)2CH2OH in 60-80% yield and lesser amts. of RCH2O2CR. Hydrogenation of I (R = same) with PtO2, (Ph3P)2PtCl2 or Ru(O2CCF3)3 gave lower yields of same products.
IT 67710-61-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 67710-61-6 CAPLUS
CN Pentanedioic acid, hexafluoro-, mono(4-carboxy-2,2,3,3,4,4-hexafluorobutyl) ester (9CI) (CA INDEX NAME)



L5 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:442477 CAPLUS
DOCUMENT NUMBER: 89:42477
ORIGINAL REFERENCE NO.: 89:6569a,6572a
TITLE: Functional fluorine derivatives by transformation of a 1H-perfluoroalkyl group
INVENTOR(S): Wakselman, Claude; Nguyen Thoai
PATENT ASSIGNEE(S): Agence Nationale de Valorisation de la Recherche, Fr.
SOURCE: Fr. Demande, 10 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2341559	A1	19770916	FR 1976-4711	19760220
FR 2341559	B1	19790824		

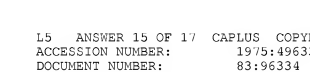
PRIORITY APPLN. INFO.: FR 1976-4711 A 19760220
AB R1(CF2)n+1CHF2 (R1 = F or protected organic group, n is an integer) were

treated with M1/mNR2 (M = alkali or alkaline earth metal, m = valence of M, R = hydrocarbon group) and the products hydrolyzed by acid to give the resp. R2(CF2)nCHFCONR2 (R2 = F or organic group). The reaction of PhCH2OCH2(CF2)3CHF2 with Et2NH and BuLi and addition of concentrated HCl in H2O gave PhCH2OCH2(CF2)2CHFCONEt2.

IT 66790-29-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydride reduction of)

RN 66790-29-2 CAPLUS

CN Pentanoic acid, 2,3,3,4,4-pentafluoro-5-(heptyloxy)- (CA INDEX NAME)



L5 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:496334 CAPLUS

DOCUMENT NUMBER: 83:96334

ORIGINAL REFERENCE NO.: 83:15116h,1511?a

TITLE: Haloacrylic acids. IV. Reaction of Grignard reagents with substituted methyl-2,3,3-trifluoroalkanoates

AUTHOR(S): Sendrik, V. P.; Paleta, Oldrich; Dedek, Vaclav

CORPORATE SOURCE: Inst. Chem. Technol., Prague, Czech.

SOURCE: Collection of Czechoslovak Chemical Communications (1975), 40(5), 1542-9
CODEN: CCCCAK; ISSN: 0010-0765

DOCUMENT TYPE: Journal

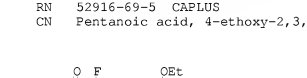
LANGUAGE: English

AB Reaction of MeMgI with EtOCHMeCF2CHFCO2Me at 35° gave EtOCHMeCF2CHFCMe2OH (I). The reaction at -35° gave a mixture of I and EtOCHMeCF2CHFCOMe. Analogous results were obtained with EtMgBr or in the reaction of RCF2CHFCO2Me (II) (R = 2-tetrahydrofuryl throughout) with MeMgI or EtMgBr. Reaction of II with Me2CHMgBr gave a mixture of RCF2CHFC(OH)(CHMe2)2 and (by reduction) RCF2CHFCH(OH)CHMe2. When treated with P2O5, I, EtOCHMeCF2CHFCEt2OH, and RCF2CHFCMe2OH (III) gave EtOCHMeCF2CHFCMe:CH2 (IV), EtOCHMeCF2CHF2CHFCEt:CHMe, and RCF2CHFCMe:CH2, resp.; with SOCl2, I gave I and IV whereas III yielded RCF2CHFCMe2Cl.

IT 52916-69-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(Grignard reactions of)

RN 52916-69-5 CAPLUS

CN Pentanoic acid, 4-ethoxy-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)



L5 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:449032 CAPLUS

DOCUMENT NUMBER: 81:49032

ORIGINAL REFERENCE NO.: 81:7835a,7838a

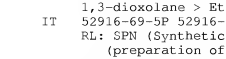
TITLE: Photochemical addition of ethers to methyl trifluoroacrylate

AUTHOR(S): Sendrik, V. P.; Paleta, Oldrich; Dedek, Vaclav

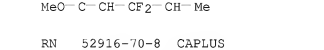
CORPORATE SOURCE: Vys. Sk. Chem. Technol., Prague, Czech.

SOURCE: Collection of Czechoslovak Chemical Communications (1974), 39(4), 1061-71

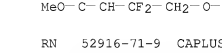
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the uv-initiated 1:1 adduct formation of ethers with F2C:CFCO2Me, the reactivity decreased in the order:THF > 4-methyl-1,3-dio-xane > 1,3-dioxolane > Et2O > MeOCH2CH2OMe > 1,4-dioxane.
IT 52916-69-5P 52916-70-8P 52916-71-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 52916-69-5 CAPLUS
CN Pentanoic acid, 4-ethoxy-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)



RN 52916-70-8 CAPLUS
CN Butanoic acid, 2,3,3-trifluoro-4-(2-methoxyethoxy)-, methyl ester (CA INDEX NAME)



RN 52916-71-9 CAPLUS
CN Pentanoic acid, 2,3,3-trifluoro-4,5-dimethoxy-, methyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1971:124920 CAPLUS
DOCUMENT NUMBER: 74:124920
ORIGINAL REFERENCE NO.: 74:20183a,20186a
TITLE: Polyfluorocycloalkenes. IX. Reactions of 1H,2H-octafluorocyclohexene, -hexafluorocyclopentene, and -tetrafluorocyclobutene with methanol under ionic conditions
AUTHOR(S): Stephens, Robert; Clayton, A. B.; Collins, D.; Tatlow, John C.
CORPORATE SOURCE: Chem. Dep., Univ. Birmingham, Birmingham, UK
SOURCE: Journal of the Chemical Society [Section] C: Organic (1971), (7), 1177-82
CODEN: JSOOAX; ISSN: 0022-4952
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 1H,2H-Octafluoro-cyclohexene reacted with NaOMe-MeOH to give 1H,1H,2H-2-methoxyoctafluorocyclohexane, 1H,6H-6-methoxyheptafluoro-cyclohexene, 1H,6H - 2 - methoxyheptafluorocyclohexene, and 1H,2H-3,3-dimethoxyhexafluorocyclohexene. Similarly, 1H,-2H - hexafluorocyclopentene gave 1H,1H,2H - 2 - methoxyhexa-fluorocyclopentane and 1H,5H - 5 - methoxypentafluorocyclo-pentene, and 1H,2H-tetrafluorocyclobutene gave 1H,4H-4-methoxytrifluorocyclobutene. The results are consistent with an addition-elimination mechanism and not a

direct allylic substitution.
IT 32670-08-9P 32670-09-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32670-08-9 CAPLUS
CN Hexanedioic acid, 2,2,3,3,4,4-hexafluoro-5-methoxy-, compd. with phenylmethyl carbamimidothioate (1:2) (CA INDEX NAME)

CM 1

CRN 45213-92-1
CMF C7 H6 F6 O5

CM 2

CRN 621-85-2
CMF C8 H10 N2 S

RN 32670-09-0 CAPLUS
CN Glutaric acid, 2,2,3,3-tetrafluoro-4-methoxy-, compd. with 2-benzyl-2-thiopseudourea (1:2) (8CI) (CA INDEX NAME)

CM 1

CRN 45153-12-6
CMF C6 H6 F4 O5

CM 2

CRN 621-85-2
CMF C8 H10 N2 S

=> filr reg
FILR IS NOT A RECOGNIZED COMMAND
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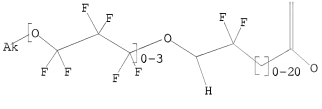
L6 STRUCTURE UPLOADED

=> d 16
L6 HAS NO ANSWERS
L6 STR



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SAMPLE SCREEN SEARCH COMPLETED - 1177 TO ITERATE

100.0% PROCESSED 1177 ITERATIONS 11 ANSWERS

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SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        21482 TO    25598
PROJECTED ANSWERS:             22 TO      418

L7           11 SEA SSS SAM L6

=> s l6 full
FULL SEARCH INITIATED 18:29:02 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    23778 TO ITERATE

100.0% PROCESSED    23778 ITERATIONS                          217 ANSWERS
SEARCH TIME: 00.00.01

L8          217 SEA SSS FUL L6

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                             178.36     454.79

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
CA SUBSCRIBER PRICE                               0.00     -13.60

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L9           101 L8

=> s l9 py not > 2004
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The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l9 not py > 2004
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L10           72 L9 NOT PY > 2004
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YOU HAVE REQUESTED DATA FROM 72 ANSWERS - CONTINUE? Y/(N):y

L10  ANSWER 1 OF 72  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2004:616738  CAPLUS
DOCUMENT NUMBER:          141:277835
TITLE:                    Syntheses of ethyl 3-deoxy-3,3-difluoro-D-arabino-
                          heptulosonate and analogues
AUTHOR(S):                Li, Yuan; Drew, Michael G. B.; Welchman, Elizabeth V.;
                          Shirvastava, Rajeev K.; Jiang, Shende; Valentine, Roy;
                          Singh, Gurdial
CORPORATE SOURCE:         Department of Chemistry, University of Sunderland,
                          Sunderland, SR1 3SD, UK
SOURCE:                   Tetrahedron (2004), 60(31), 6523-6531
                          CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER:                Elsevier B.V.
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
OTHER SOURCE(S):          CASREACT 141:277835
GI
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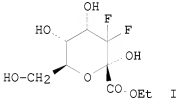

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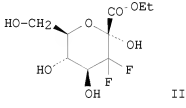


II

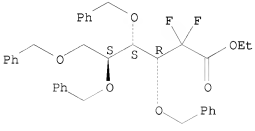
AB The difluorinated analogs of 3-deoxy-D-arabino-heptulosonic acid (DAH) I, II and its enantiomer have been synthesized from D- and L-erythrose via a Reformatsky reaction which gave a mixture of diastereoisomers in favor of the anti isomer.

IT 760973-07-7P 760973-14-6P
RL: BYP (Byproduct); PREP (Preparation)
(preparation of difluorinated analogs of 3-deoxy-D-arabino-heptulosonic acid from D- and L-erythrose via a Reformatsky reaction)

RN 760973-07-7 CAPLUS

CN L-arabino-Hexonic acid, 2-deoxy-2,2-difluoro-3,4,5,6-tetrakis-O-(phenylmethyl)-, ethyl ester (CA INDEX NAME)

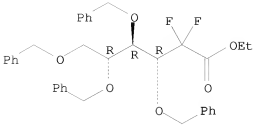
Absolute stereochemistry.



RN 760973-14-6 CAPLUS

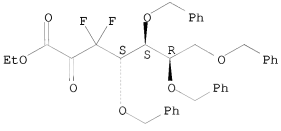
CN D-ribo-Hexonic acid, 2-deoxy-2,2-difluoro-3,4,5,6-tetrakis-O-(phenylmethyl)-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry.



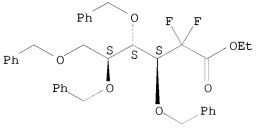
IT 841262-65-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of difluorinated analogs of 3-deoxy-D-arabino-heptulosonic acid from D- and L-erythrose via a Reformatsky reaction)
RN 841262-65-5 CAPLUS
CN D-lyxo-2-Heptulosonic acid, 3-deoxy-3,3-difluoro-4,5,6,7-tetrakis-O-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



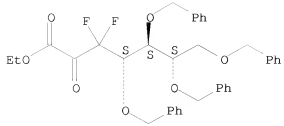
IT 760973-06-6P 760973-09-9P 760973-13-5P
760973-16-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of difluorinated analogs of 3-deoxy-D-arabino-heptulosonic acid from D- and L-erythrose via a Reformatsky reaction)
RN 760973-06-6 CAPLUS
CN L-ribo-Hexonic acid, 2-deoxy-2,2-difluoro-3,4,5,6-tetrakis-O-(phenylmethyl)-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



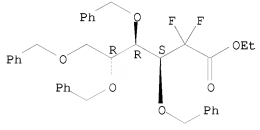
RN 760973-09-9 CAPLUS
CN L-ribo-2-Heptulosonic acid, 3-deoxy-3,3-difluoro-4,5,6,7-tetrakis-O-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



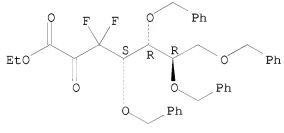
RN 760973-13-5 CAPLUS
CN D-arabino-Hexonic acid, 2-deoxy-2,2-difluoro-3,4,5,6-tetrakis-O-(phenylmethyl)-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 760973-16-8 CAPLUS
CN D-arabino-2-Heptulosonic acid, 3-deoxy-3,3-difluoro-4,5,6,7-tetrakis-O-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

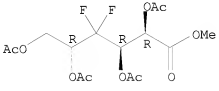


REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:511439 CAPLUS
DOCUMENT NUMBER: 141:190987
TITLE: A stereodivergent asymmetric approach to difluorinated aldonic acids
AUTHOR(S): Audouard, Christophe; Barsukov, Igor; Fawcett, John; Griffith, Gerry A.; Percy, Jonathan M.; Pintat, Stephane; Smith, Clive A.
CORPORATE SOURCE: Department of Chemistry, University of Leicester, Leicester, LE1 7RH, UK
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2004), (13), 1526-1527
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:190987
AB A (bromodifluoromethyl)alkyne has been deployed in a stereoselective route to difluorinated aldonic acid analogs, in which a Sharpless asym. dihydroxylation reaction and diastereoisomer separation set the stage for Ph group oxidation
IT 740839-82-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(asym. synthesis of difluorinated aldonic acid analogs via stereoselective reduction, Sharpless dihydroxylation, diastereoisomer separation, and oxidative cleavage)
RN 740839-82-1 CAPLUS
CN D-xylo-Hexonic acid, 4-deoxy-4,4-difluoro-, methyl ester, tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

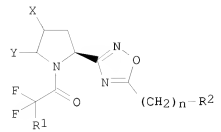


REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:330143 CAPLUS
DOCUMENT NUMBER: 140:357351
TITLE: Preparation of (2S)-2-(1,2,4-oxadiazol-3-yl)pyrrolidine derivatives binding to FKBP12 binding protein
INVENTOR(S): Taguchi, Minoru; Wataya, Kengo
PATENT ASSIGNEE(S): Taisho Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004123556	A	20040422	JP 2002-285857	20020930
PRIORITY APPLN. INFO.:			JP 2002-285857	20020930

OTHER SOURCE(S): MARPAT 140:357351
GI



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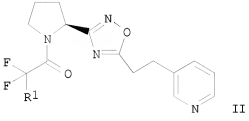


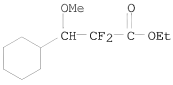
II

AB The title compds. [I; X, Y = H, F; R1 = Ph optionally substituted by 1-3 number of C1-5 alkoxy, C4-9 cycloalkylcarbonyl, C R3R4R5; wherein R3 = C1-8 alkyl, C3-8 cycloalkyl, C3-8 cycloalkenyl, C1-5 alkoxy optionally substituted by 1-3 number of C1-5 alkoxy, thienyl, norbornanyl; R4 = H, C1-5 alkyl; or CR3R4 together represents (un)substituted C3-8 cycloalkyl, C3-8 cycloalkenyl, norbornanyl, piperidinyl, N-C2-5 alkanoylpiperidinyl, tetrahydropyranyl, or indanyl; R5 = H, HO, C1-5 alkoxy, C2-5 alkanoyl, C1-5 alkylsulfonyloxy; R2 = Ph optionally substituted by 1-3 number of C1-5 alkoxy, C3-8 cycloalkyl, pyridyl; n = an integer of 0-3] are prepared These compds. are ligands for FKBP12 (FK506-binding protein, 12 kDa mol. weight), exhibit neurotrophic activity without calcineurin-inhibitory activity, i.e. immunosuppressant activity, and are useful as therapeutic agents for various neurodegenerative diseases. Thus, 9.44 g 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride was added to a solution of (2S)-2-[5-[2-(3-pyridyl)ethyl]-1,2,4-oxadiazol-3-yl]pyrrolidine 10.0, 3-cyclohexyl-2,2-difluoro-3-hydroxypropionic acid 8.52, 1-hydroxybenzotriazole monohydrate 6.64 in 100 mL CH2Cl2 under ice-cooling, stirred for 2 h at the same temperature to give, after workup and silica gel chromatog., 13.2 g (2S)-1-(3-cyclohexyl-2,2-difluoro-3-hydroxypropionyl)-2-[5-[2-(3-pyridyl)ethyl]-1,2,4-oxadiazol-3-yl]pyrrolidine [II; R = cyclohexyl(hydroxy)methyl]. II [R1 = cyclohexyl(hydroxy)methyl] and II (R1 = 1-hydroxy-3,3,5,5-tetramethylcyclohexyl) inhibited the rotamase activity of FKBP12 binding protein on a substrate L-1605 peptide in the presence of α-chymotrypsin with IC50 of 0.35 and 0.035 μM, resp.

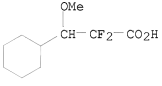
IT 681240-45-9P 681240-46-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of (2S)(oxadiazolyl)pyrrolidine derivs. binding to FKBP12 binding protein as therapeutic agents for various neurodegenerative diseases)

RN 681240-45-9 CAPLUS

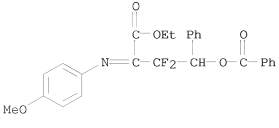
CN Cyclohexanepropanoic acid, α,α-difluoro-β-methoxy-, ethyl ester (CA INDEX NAME)



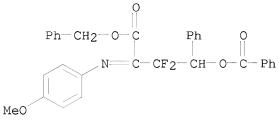
RN 681240-46-0 CAPLUS
CN Cyclohexanepropanoic acid, α,α-difluoro-β-methoxy- (CA INDEX NAME)



L10 ANSWER 4 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:827052 CAPLUS
DOCUMENT NUMBER: 140:16390
TITLE: Mg-Promoted Double Silylation of Trifluoroacetimidoyl Chlorides. A New Entry to the Fluorinated Dianion Equivalents
AUTHOR(S): Kobayashi, Takeshi; Nakagawa, Takashi; Amii, Hideki; Uneyama, Kenji
CORPORATE SOURCE: Department of Applied Chemistry, Faculty of Engineering, Okayama University, Okayama, 700-8530, Japan
SOURCE: Organic Letters (2003), 5(23), 4297-4300
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:16390
AB A Mg(0)/Me3SiCl system was found to be effective for the preparation of a novel fluorinated dianion equivalent A one-pot reaction sequence involving reductive C-F and C-Cl bond cleavage reactions of trifluoroacetimidoyl chlorides afforded bis-silylated difluoroenamines. Subsequent carbon-carbon bond-forming reactions of the bis(silyl)enamines with two kinds of electrophiles gave a variety of difluorinated imines.
IT 629625-57-6P 629625-58-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of difluorinated imines via magnesium-promoted double silylation of trifluoroacetimidoyl chlorides followed by reaction of bis(silyl)enamines with electrophiles)
RN 629625-57-6 CAPLUS
CN Benzenebutanoic acid, γ-(benzoyloxy)-β,β-difluoro-α-[(4-methoxyphenyl)imino]-, ethyl ester (CA INDEX NAME)

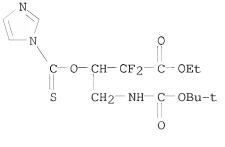


RN 629625-58-7 CAPLUS
CN Benzenebutanoic acid, γ-(benzoyloxy)-β,β-difluoro-α-[(4-methoxyphenyl)imino]-, phenylmethyl ester (CA INDEX NAME)



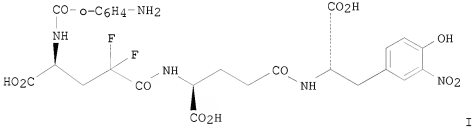
REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:800312 CAPLUS
DOCUMENT NUMBER: 140:128623
TITLE: 4-Fluorinated L-lysine analogs as selective i-NOS inhibitors: methodology for introducing fluorine into the lysine side chain
AUTHOR(S): Hallinan, E. Ann; Kramer, Steven W.; Houdek, Stephen C.; Moore, William M.; Jerome, Gina M.; Spangler, Dale P.; Stevens, Anna M.; Shieh, Huey S.; Manning, Pamela T.; Pitzele, Barnett S.
CORPORATE SOURCE: Pharmacia, Skokie, IL, 60077, USA
SOURCE: Organic & Biomolecular Chemistry (2003), 1(20), 3527-3534
CODEN: OBCRAK; ISSN: 1477-0520
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:128623
AB In the literature, the introduction of fluorine into bioactive mols. is known to enhance the biol. activity relative to the parent mol. Described in this article is the synthesis of 4R-fluoro-L-NIL and 4,4-difluoro-L-NIL as part of an iNOS program. Both were found to be selective iNOS inhibitors. Secondarily, methodol. to synthesize orthogonally protected 4-fluoro-L-lysine and 4,4-difluoro-L-lysine was developed.
IT 650605-00-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 4-fluorinated L-lysine analogs from the Garner aldehdye and selective i-NOS inhibitory activity)
RN 650605-00-8 CAPLUS
CN Butanoic acid, 4-[[(1,1-dimethylethoxy)carbonyl]amino]-2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:947475 CAPLUS
DOCUMENT NUMBER: 138:304521
TITLE: The synthesis of (2S)-4,4-difluoroglutamyl γ-peptides based on Garner's aldehyde and fluoro-Reformatskii chemistry
AUTHOR(S): Konas, David W.; Pankuch, Jessica J.; Coward, James K.
CORPORATE SOURCE: Department of Chemistry, University of Michigan, Ann Arbor, MI, 48109, USA
SOURCE: Synthesis (2002), (17), 2616-2626
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:304521
GI



I

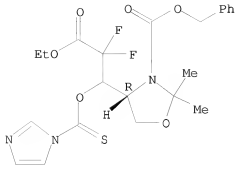
AB The development of optically active fluorinated synthetic building blocks of general utility is a current goal of organo-fluorine chemists. The serine-derived Garner aldehyde was converted to a general 4,4-difluoroamino acid building block via fluoro-Reformatskii reaction with Et bromodifluoroacetate. The utility of this building block was demonstrated by the synthesis of derivs. of (2S)-4,4-difluoroglutamine, (2S)-4,4-difluoroglutamic acid, and its incorporation into a fluorophore-containing isopeptide (I) designed as a mechanistic probe of γ-glutamyl hydrolase. Compound I proved to be a substrate for γ-glutamyl hydrolase and was hydrolyzed at a rate significantly slower than the corresponding non-fluorinated analog.

IT 510713-90-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of fluorinated peptides using fluoro-amino acids prepared via fluoro-Reformatskii reaction with Et bromodifluoroacetate)

RN 510713-90-3 CAPLUS

CN 4-Oxazolidinepropanoic acid, α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-2,2-dimethyl-3-[(phenylmethoxy)carbonyl]-, ethyl ester, (4R)- (CA INDEX NAME)

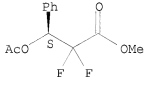
Absolute stereochemistry.



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:846200 CAPLUS
DOCUMENT NUMBER: 138:286986
TITLE: Synthesis of optically active 2,2-difluorohomoallyl alcohols by lipase-catalyzed transesterification
AUTHOR(S): Kirihara, Masayuki; Kawasaki, Masashi; Katsumata, Hiroki; Kakuda, Hiroko; Shiro, Motoo; Kawabata, Shigeki
CORPORATE SOURCE: Department of Materials Science, Shizuoka Institute of Science and Technology, Fukuroi, Shizuoka, 437-8555, Japan
SOURCE: Tetrahedron: Asymmetry (2002), 13(20), 2283-2289
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:286986
AB Racemic 2,2-difluorohomoallyl alcs. could be resolved into (R)-alcs. and (S)-acetates through Pseudomonas fluorescens lipase-catalyzed enantioselective transesterification. The utility of the resulting chiral, non-racemic 2,2-difluorohomoallyl alcs. was demonstrated by conversion of one of the (S)-acetates into a synthetically important 2,2-difluoro-3-hydroxycarboxylate derivative
IT 505068-93-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of optically active carboxylated compound derived from their corresponding difluorohomoallyl alc.)
RN 505068-93-9 CAPLUS
CN Benzenepropanoic acid, β-(acetyloxy)-α,α-difluoro-, methyl ester, (βS)- (CA INDEX NAME)

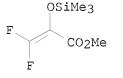
Absolute stereochemistry.



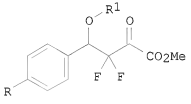
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:675024 CAPLUS

DOCUMENT NUMBER: 138:122444
TITLE: Methyl 3,3-difluoro-2-trimethylsilyloxyacrylate: preparation and Mukaiyama-type aldol condensation as a novel route to β,β-difluoro-α-keto ester derivatives
AUTHOR(S): Jiang, Biao; Zhang, Xiaobing; Shi, Guoqiang
CORPORATE SOURCE: Shanghai Institute of Organic Chemistry, State Key Laboratory of Organometallic Chemistry, Chinese Academy of Sciences, Shanghai, 200032, Peop. Rep. China
SOURCE: Tetrahedron Letters (2002), 43(38), 6819-6821
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:122444
GI



I

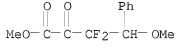


II

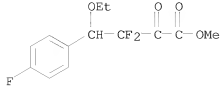
AB Mukaiyama-type aldol condensation of arylaldehyde acetals occurs smoothly with Me 3,3-difluoro-2-trimethylsilyloxyacrylate (I, derived from Et 3,3-difluoro-2-benzyloxyacrylate) when catalyzed by a Lewis acid, allowing preparation of 4-alkyloxy-3,3-difluoro-2-keto esters II (R = H, Cl, OMe, NO2, R1 = Me; R = F, R1 = Et).

IT 491612-53-4P 491612-54-5P 491612-55-6P
491612-56-7P 491612-57-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of α-keto-β,β-difluoro esters via debenzylation/silylation of α-benzyloxy-β,β-difluoroacrylate followed by Lewis acid-catalyzed Mukaiyama-type aldol condensation with di-Me acetals of aromatic aldehydes)

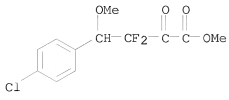
RN 491612-53-4 CAPLUS
CN Benzenebutanoic acid, β,β-difluoro-γ-methoxy-α-oxo-, methyl ester (CA INDEX NAME)



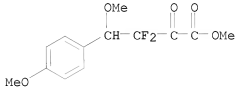
RN 491612-54-5 CAPLUS
CN Benzenebutanoic acid, γ-ethoxy-β,β,4-trifluoro-α-oxo-, methyl ester (CA INDEX NAME)



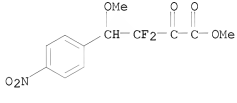
RN 491612-55-6 CAPLUS
CN Benzenebutanoic acid, 4-chloro-β,β-difluoro-γ-methoxy-α-oxo-, methyl ester (CA INDEX NAME)



RN 491612-56-7 CAPLUS
CN Benzenebutanoic acid, β,β-difluoro-γ,4-dimethoxy-α-oxo-, methyl ester (CA INDEX NAME)



RN 491612-57-8 CAPLUS
CN Benzenebutanoic acid, β,β-difluoro-γ-methoxy-4-nitro-α-oxo-, methyl ester (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:586220 CAPLUS
DOCUMENT NUMBER: 139:230959
TITLE: A concise synthesis of L-4,4-difluoroglutamine. [Erratum to document cited in CA136:217020]
AUTHOR(S): Meffre, Patrick; Dave, Rajesh H.; Leroy, Jacques; Badet, Bernard
CORPORATE SOURCE: ENSCP, UMR 7573-CNRS, Paris, 75231, Fr.
SOURCE: Tetrahedron Letters (2002), 43(35), 6279
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Re-examination of the structural assignments of the final product reported showed that the product obtained after amino group deprotection was actually L-4,4-difluoroglutamic acid due to concomitant hydrolytic cleavage of the amide group. This problem could be circumvented by using a different amino protecting group which could be removed under non-hydrolytic conditions. Anal. data given in reference 23 on page 8627 correspond indeed to L-4,4-difluoroglutamic acid and are in agreement with the previously described data for the same compound (Konas et al., 1999;

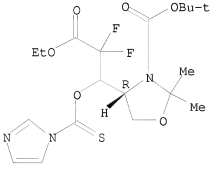
Ding et al., 2001). Mol. mass for L-4,4-difluoroglutamic acid is M = 183 u vs. M = 182 u for L-4,4-difluoroglutamine. Supplementary MS and microanal. data are given. The analyses of the Boc-protected amide are consistent with the proposed structure.

IT 401915-30-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(concise preparation of L-4,4-difluoroglutamine starting from Garner's aldehyde with Reformatskii reaction as key step (Erratum))

RN 401915-30-8 CAPLUS

CN 4-Oxazolidinepropanoic acid, 3-[(1,1-dimethylethoxy)carbonyl]-α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-2,2-dimethyl-, ethyl ester, (4R)- (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 10 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

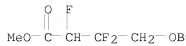
ACCESSION NUMBER: 2002:1324 CAPLUS
DOCUMENT NUMBER: 136:325124
TITLE: Novel rearrangement of secondary alkoxyalkyl radicals during addition to a double bond. Steric shielding in the formation of tertiary alkoxyethyl radicals
AUTHOR(S): Paleta, Oldrich; Hajduch, Jan; Bohm, Stanislav
CORPORATE SOURCE: Department of Organic Chemistry, Prague Institute of Chemical Technology, Prague, 16628, Czech Rep.
SOURCE: Tetrahedron Letters (2002), 43(3), 481-485
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:325124

AB The participation of a 1,3-hydroqen shift in initially formed secondary alkoxyethyl radicals R1R2CH-O-CH√-CH3 during their free-radical chain addns. to Me 2,3,3-trifluoroacrylate has been confirmed using a deuterium marked additive. Indirect evidence has been obtained for a partial 1,3-hydrogen shift in secondary radicals CH3(CH2)n-CH√-O-CH3 to primary radicals CH3(CH2)n-CH2-O-CH2√. Initial formation of tertiary alkoxyethyl radicals R1R2C√-O-CHR3R4 in the propagation step was not observed due to steric factors.

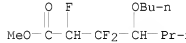
IT 412310-49-7P
RL: BYP (Byproduct); PREP (Preparation)
(rearrangement of secondary alkoxyalkyl radicals during addition to a double bond)

RN 412310-49-7 CAPLUS

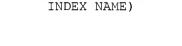
CN Butanoic acid, 4-butoxy-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)



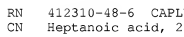
IT 412310-43-1P 412310-45-3P 412310-48-6P
412310-50-0P 412310-52-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(rearrangement of secondary alkoxyalkyl radicals during addition to a double bond)
RN 412310-43-1 CAPLUS
CN Heptanoic acid, 4-butoxy-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)



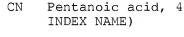
RN 412310-45-3 CAPLUS
CN Pentanoic acid, 2,3,3-trifluoro-4-(1-methylethoxy)-, methyl ester (CA INDEX NAME)



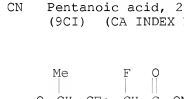
RN 412310-48-6 CAPLUS
CN Heptanoic acid, 2,3,3-trifluoro-4-methoxy-, methyl ester (CA INDEX NAME)



RN 412310-50-0 CAPLUS
CN Pentanoic acid, 4-(1,1-dimethylethoxy)-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)



RN 412310-52-2 CAPLUS
CN Pentanoic acid, 2,3,3-trifluoro-4-(1-methylethoxy-1-d)-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS

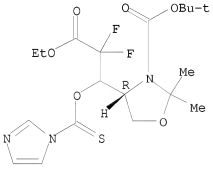
L10 ANSWER 11 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:831828 CAPLUS
DOCUMENT NUMBER: 136:217020
TITLE: A concise synthesis of L-4,4-difluoroglutamine
AUTHOR(S): Meffre, Patrick; Dave, Rajesh H.; Leroy, Jacques; Badet, Bernard
CORPORATE SOURCE: UMR 7573-CNRS, ENSCP, Paris, F-75231, Fr.
SOURCE: Tetrahedron Letters (2001), 42(49), 8625-8627
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:217020

AB L-4,4-Difluoroglutamine of high optical purity was prepared from (R)-Garner's aldehyde [tert-Bu (4R)-formyl-2,2-dimethyloxazolidine-3-carboxylate] using Reformatskii reaction as the key step for introducing the fluorinated side-chain.

IT 401915-30-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(concise preparation of L-4,4-difluoroglutamine starting from Garner's aldehyde with Reformatskii reaction as key step)

RN 401915-30-8 CAPLUS
CN 4-Oxazolidinepropanoic acid, 3-[(1,1-dimethylethoxy)carbonyl]-α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-2,2-dimethyl-, ethyl ester, (4R)- (CA INDEX NAME)

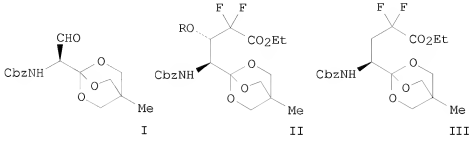
Absolute stereochemistry.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 12 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:619600 CAPLUS
DOCUMENT NUMBER: 135:344696
TITLE: Synthesis of L-4,4-difluoroglutamic acid via nucleophilic addition to a chiral aldehyde
AUTHOR(S): Ding, Yun; Wang, Jianqiang; Abboud, Khalil A.; Xu, Yuelian; Dolbier, William R., Jr.; Richards, Nigel G. J.
CORPORATE SOURCE: Department of Chemistry, University of Florida, Gainesville, FL, 32611-7200, USA
SOURCE: Journal of Organic Chemistry (2001), 66(19), 6381-6388
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:344696
GI



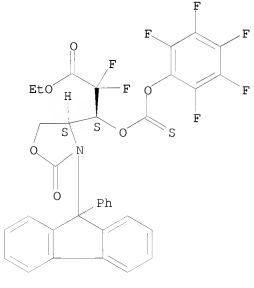
AB This work reports a new, flexible route to enantiomerically pure L-4,4-difluoroglutamic acid. The key reaction step was the addition of difluorinated nucleophile, Reformatskii reagent (derived from Et bromodifluoroacetate and zinc), to the configurationally stable aminoaldehyde I. The resulting intermediate hydroxy ester II (R = OH) was converted to oxythiocarbonylimidazole derivative II (R = 1-imidazoylthiocarbonyl), which underwent Barton-McCombie dehydroxylation to the protected difluoroester III. Acid hydrolysis of III gave the title product.

IT 371155-43-0P 371155-46-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of chiral difluoroglutamic acid via nucleophilic addition of Reformatskii reagent to serine-derived chiral aminoaldehyde)

RN 371155-43-0 CAPLUS

CN 4-Oxazolidinepropanoic acid, α,α-difluoro-2-oxo-β-[(pentafluorophenoxy)thioxomethoxy]-3-(9-phenyl-9H-fluoren-9-yl)-, ethyl ester, (βS,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

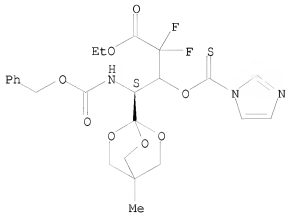


RN 371155-46-3 CAPLUS

CN 2,6,7-Trioxabicyclo[2.2.2]octane-1-butanoic acid, α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-4-methyl-γ-[[(phenylmethoxy)carbonyl]amino]-, ethyl ester, (γS)- (9CI) (CA

INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 105 THERE ARE 105 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

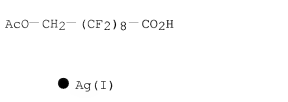
L10 ANSWER 13 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:481438 CAPLUS
DOCUMENT NUMBER: 135:210736
TITLE: A Novel Strategy for the Synthesis of ω-Functionalized Perfluoroalkyl Iodides
AUTHOR(S): Szlavik, Zoltan; Tarkanyi, Gabor; Skribanek, Zsolt; Vass, Elemer; Rabai, Jozsef
CORPORATE SOURCE: Department of Organic Chemistry, Eoetvoes University, Budapest, H-1518, Hung.
SOURCE: Organic Letters (2001), 3(15), 2365-2366
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:210736

AB The applicability of telomeric alcs., H(CF2CF2)nCH2OH [n = 5], for the synthesis of ω-functionalized F-alkylating reagents, I(CF2CF2)n-1CH2OAc, is demonstrated. The key steps of this optimized method are the activation of the HCF2- terminus in a lithiation process yielding (Z+E)-BuCF:CF(CF2CF2)4CH2OH [I, 86%] and a successive ozonation reaction in trifluoroethanol media affording CF3CH2O2C(CF2CF2)4CH2OH [93%]. This compound underwent addition reaction with 1-undecene to give Me(CH2)8CHICH2(CF2)8CH2OAc. Highly stereospecific ozone cleavage of (E)-I was observed in methanol due to the competitive oxidation of the solvent.

IT 358352-39-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of functionalized polyfluoroalkyl acetates)

RN 358352-39-3 CAPLUS

CN Decanoic acid, 10-(acetyloxy)-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluoro-, monosilver(1+) salt (9CI) (CA INDEX NAME)



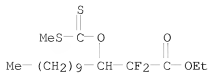
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 14 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:841344 CAPLUS
DOCUMENT NUMBER: 134:131064
TITLE: Practical and efficient synthesis of alkyl, alkenyl and aryl-alkyl α,α-difluoro esters as precursors of potential inhibitors of the pheromone catabolism in insects
AUTHOR(S): Jimenez, Oscar; Bosch, Maria Pilar; Guerrero, Angel
CORPORATE SOURCE: Department of Biological Organic Chemistry, Institute of Chemical and Environmental Research (CSIC), Barcelona, E-08034, Spain
SOURCE: Synthesis (2000), (13), 1917-1924
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:131064

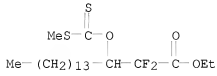
AB An efficient method for the synthesis of long chain alkyl, alkenyl and aryl-alkyl α,α-difluoro esters through reductive cleavage of the corresponding S-Me dithiocarbonates with diphenylphosphine oxide and di-tert-Bu peroxide as initiator is reported. The α,α-difluoro esters have been obtained for the first time and in good overall yields. A limitation of the method is the presence of radical-sensitive functions, such as disubstituted double or triple bonds, in the substrate since the concomitant addition of the phosphonyl radical to the unsatd. carbons may induce isomerization of the double bond or polymerization If stereomerically pure alkenyl α,α-difluoro esters are required, it is suggested to run the reductive cleavage on the S-Me dithiocarbonate of the acetylenic precursor followed by stereoselective hydrogenation to the alkene.

IT 321856-74-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation α,α-difluoro esters by reductive dehydroxylation of α,α-difluoro β-hydroxy esters)
RN 321856-74-0 CAPLUS
CN Tridecanoic acid, 2,2-difluoro-3-(phenoxythioxomethoxy)-, ethyl ester (CA INDEX NAME)

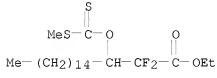
IT 321856-44-4P 321856-46-6P 321856-48-8P
321856-50-2P 321856-52-4P 321856-54-6P
321856-56-8P 321856-58-0P 321856-59-1P
321856-61-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation α,α-difluoro esters by reductive dehydroxylation of α,α-difluoro β-hydroxy esters)
RN 321856-44-4 CAPLUS
CN Tridecanoic acid, 2,2-difluoro-3-[(methylthio)thioxomethoxy]-, ethyl ester (CA INDEX NAME)



RN 321856-46-6 CAPLUS
CN Heptadecanoic acid, 2,2-difluoro-3-[(methylthio)thioxomethoxy]-, ethyl ester (CA INDEX NAME)

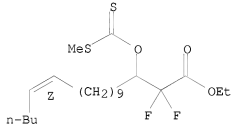


RN 321856-48-8 CAPLUS
CN Octadecanoic acid, 2,2-difluoro-3-[(methylthio)thioxomethoxy]-, ethyl ester (CA INDEX NAME)



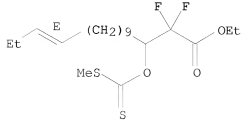
RN 321856-50-2 CAPLUS
CN 13-Octadecenoic acid, 2,2-difluoro-3-[(methylthio)thioxomethoxy]-, ethyl ester, (13Z)- (CA INDEX NAME)

Double bond geometry as shown.

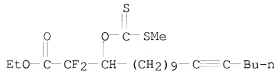


RN 321856-52-4 CAPLUS
CN 13-Hexadecenoic acid, 2,2-difluoro-3-[(methylthio)thioxomethoxy]-, ethyl ester, (13E)- (CA INDEX NAME)

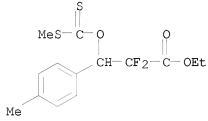
Double bond geometry as shown.



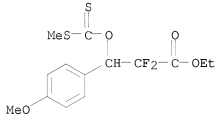
RN 321856-54-6 CAPLUS
CN 13-Octadecynoic acid, 2,2-difluoro-3-[(methylthio)thioxomethoxy]-, ethyl ester (CA INDEX NAME)



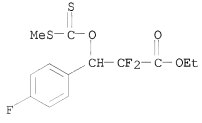
RN 321856-56-8 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-4-methyl-β-[(methylthio)thioxomethoxy]-, ethyl ester (CA INDEX NAME)



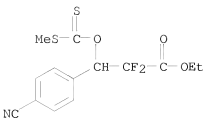
RN 321856-58-0 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-4-methoxy-β-[(methylthio)thioxomethoxy]-, ethyl ester (CA INDEX NAME)



RN 321856-59-1 CAPLUS
CN Benzenepropanoic acid, α,α,4-trifluoro-β-[(methylthio)thioxomethoxy]-, ethyl ester (CA INDEX NAME)

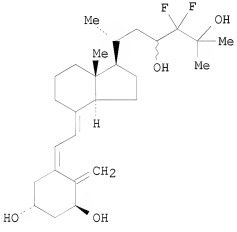


RN 321856-61-5 CAPLUS
CN Benzenepropanoic acid, 4-cyano-α,α-difluoro-β-[(methylthio)thioxomethoxy]-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 15 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:3010 CAPLUS
DOCUMENT NUMBER: 130:168539
TITLE: Synthesis and biological evaluation of (23R)- and (23S)-24,24-difluoro-1α,23,25-trihydroxyvitamin D3
AUTHOR(S): Iwasaki, Hiroshi; Miyamoto, Yoichi; Hosotani, Ryuzo; Nakano, Yoshio; Konno, Katsuhiro; Takayama, Hiroaki
CORPORATE SOURCE: Tsukuba Research Laboratory, NOF Corporation, Tsukuba, 300-2635, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1998), 46(12), 1932-1935
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 130:168539
GI



I

AB The syntheses and biol. evaluations of (23R)- and (23S)-24,24-difluoro-1α,23,25-trihydroxyvitamin D3 I, new C-24 fluorinated analogs of 1α,25-dihydroxyvitamin D3, are described. The syntheses of these compds. were achieved in steps from (5Z,7E,20R)-1α,3β-bis-[(tert-butyldimethylsilyl)oxy]-20-formylmethyl-9,10-seco-5,7,10(19)pregnatriene which is derived from vitamin D2. The absolute configuration at the C-23 position of I was determined by the modified Mosher method. The relative affinities of R- and S-I to the vitamin D receptor were both 10 and 14 times lower than that of 1α,25-dihydroxyvitamin D3, and to vitamin D binding protein were also both 130 and 40 times lower. The HL-60 cell differentiating activity of R-I was 6 times more

potent than that of 1α,25-dihydroxyvitamin D3, while there was no remarkable difference in activity between S-I and 1α,25-dihydroxyvitamin D3.

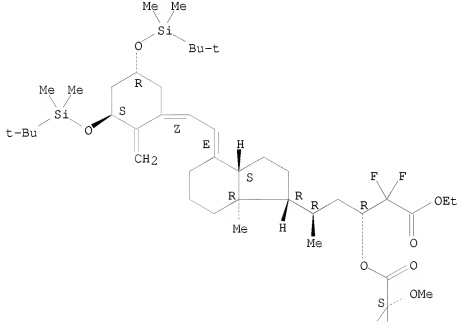
IT 220370-07-0P 220370-08-1P 220370-09-2P
220370-10-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and biol. evaluation of (23R)- and (23S)-24,24-difluoro-1α,23,25-trihydroxyvitamin D3)

RN 220370-07-0 CAPLUS

CN 9,10-Secochola-5,7,10(19)-triene-24-carboxylic acid, 1,3-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-24,24-difluoro-23-[(2S)-3,3,3-trifluoro-2-methoxy-1-oxo-2-phenylpropoxy]-, ethyl ester, (1α,3β,5Z,7E,23R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



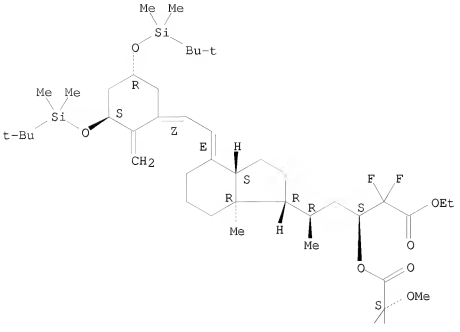
PAGE 2-A

RN 220370-08-1 CAPLUS

CN 9,10-Secochola-5,7,10(19)-triene-24-carboxylic acid, 1,3-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-24,24-difluoro-23-[(2S)-3,3,3-trifluoro-2-methoxy-1-oxo-2-phenylpropoxy]-, ethyl ester, (1α,3β,5Z,7E,23S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

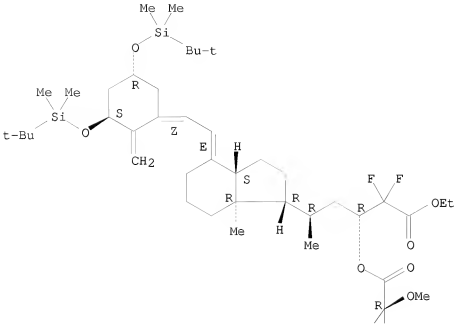


PAGE 2-A

RN 220370-09-2 CAPLUS
CN 9,10-Secochola-5,7,10(19)-triene-24-carboxylic acid, 1,3-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-24,24-difluoro-23-[(2R)-3,3,3-trifluoro-2-methoxy-1-oxo-2-phenylpropoxy]-, ethyl ester, (1α,3β,5Z,7E,23R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

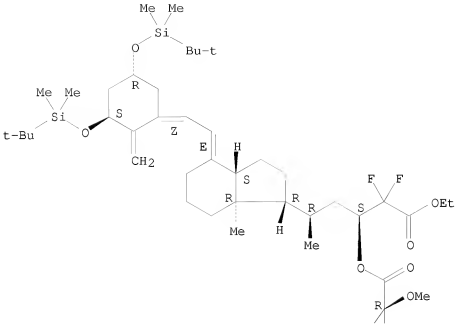
PAGE 1-A



PAGE 2-A

RN 220370-10-5 CAPLUS
CN 9,10-Secochola-5,7,10(19)-triene-24-carboxylic acid, 1,3-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-24,24-difluoro-23-[(2R)-3,3,3-trifluoro-2-methoxy-1-oxo-2-phenylpropoxy]-, ethyl ester, (1α,3β,5Z,7E,23S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 16 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:454154 CAPLUS
DOCUMENT NUMBER: 129:189593
TITLE: Synthesis of 2,3-dideoxy-2,2-difluoro-L-glycero-pentofuranosyl nucleosides
AUTHOR(S): Kotra, Lakshmi P.; Newton, M. Gary; Chu, Chung K.
CORPORATE SOURCE: Department of Medicinal Chemistry, College of Pharmacy, The University of Georgia, Athens, GA, 30602-2352, USA
SOURCE: Carbohydrate Research (1998), 306(1-2), 69-80
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

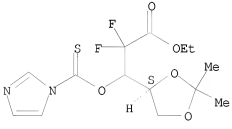
AB Various 2,3-dideoxy-2,2-difluoro-L-glycero-pentofuranosyl nucleosides were synthesized via the key intermediate, 5-O-benzoyl-2,3-dideoxy-2,2-difluoro-L-glycero-pentofuranose. 2,3-O-Isopropylidene-L-glyceraldehyde was coupled with Et bromodifluoroacetate under Reformatsky conditions to obtain the diastereomeric mixture of Et (4S)-3-hydroxy-3-(2,2-dimethyl-1,3-dioxolan-4-yl)-2,2-difluoro propionate. Treatment with carbon disulfide, sodium hydride and Me iodide followed by reduction afforded Et (4S)-3-(2,2-dimethyl-1,3-dioxolan-4-yl)-2,2-difluoro propionate. This compound was treated with 5% HCl in ethanol, followed by refluxing in benzene under Dean-Stark conditions, to afford the lactone. The lactone was protected and reduced to afford the key intermediate,

5-O-benzoyl-2,3-dideoxy-2,2-difluoro-L-glycero-pentofuranose. For the synthesis of pyrimidine derivs., the intermediate was converted to the mesylate and condensed with various silyl protected pyrimidine bases. The inosine and adenine derivs. were obtained from the intermediate and 6-chloropurine using standard procedures. The compds. were evaluated for their antiviral activity against HIV-1, HBV, HSV-1 and HSV-2, and for cellular toxicity. None of the synthesized compds. showed any significant activity or toxicity. Single-crystal X-ray structure of 1-(2,3-dideoxy-2,2-difluoro-β-L-glycero-pentofuranosyl)-5-iodocytosine suggested a 2'-exo/3'-endo conformation for the carbohydrate moiety.

IT 211807-31-7P 211807-62-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of dideoxydifluoroglyceropentofuranosyl nucleosides)

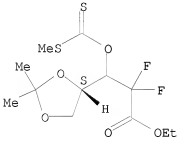
RN 211807-31-7 CAPLUS
CN L-glycero-Pentonic acid, 2-deoxy-2,2-difluoro-4,5-O-(1-methylethylidene)-, ethyl ester, 1H-imidazole-1-carbothioate, (3ξ)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 211807-62-4 CAPLUS
CN L-glycero-Pentonic acid, 2-deoxy-2,2-difluoro-4,5-O-(1-methylethylidene)-, ethyl ester, S-methyl carbonodithioate, (3ξ)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 17 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:450902 CAPLUS
DOCUMENT NUMBER: 129:203135
TITLE: Noncalcemic, Antiproliferative, Transcriptionally Active, 24-Fluorinated Hybrid Analogs of the Hormone 1α,25-Dihydroxyvitamin D3. Synthesis and Preliminary Biological Evaluation
AUTHOR(S): Posner, Gary H.; Lee, Jae Kyoo; Wang, Qiang; Peleg, Sara; Burke, Martin; Brem, Henry; Dolan, Patrick; Kensler, Thomas W.

CORPORATE SOURCE: Department of Chemistry, Johns Hopkins University, Baltimore, MD, 21218, USA
SOURCE: Journal of Medicinal Chemistry (1998), 41(16), 3008-3014
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

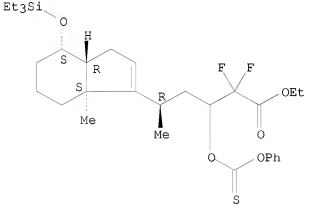
AB Four new hybrid analogs of 1α,25-dihydroxyvitamin D3 have been synthesized in a convergent manner by joining A-ring and C,D-ring fragments. Each hybrid analog, having a noncalcemic 1-hydroxymethyl group and a potentiating 16-ene 24,24-difluorinated C,D-ring side chain, was designed to be lipophilic and inert toward 24-hydroxylase enzyme catabolism. Each hybrid analog with 1β,3α-substituent stereochem. showed a pharmacol. desirable combination of in vitro high antiproliferative activity in two different cell lines and high transcriptional activity with also low calcemic activity in vivo.

IT 212124-41-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of noncalcemic, antiproliferative, transcriptionally active, 24-fluorinated hybrid analogs of 1α,25-dihydroxyvitamin D3)

RN 212124-41-9 CAPLUS

CN 1H-Indene-3-pentanoic acid, α,α-difluoro-3a,4,5,6,7,7a-hexahydro-δ,3a-dimethyl-β-(phenoxythioxomethoxy)-7-[(triethylsilyl)oxy]-, ethyl ester, (δR,3aS,7S,7aR)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

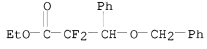
L10 ANSWER 18 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:396827 CAPLUS
DOCUMENT NUMBER: 129:122385
TITLE: New expedient route to the stereoselective synthesis of fluorinated 1,3-diol derivatives via aluminum acetals derived from β-alkoxy esters and DIBAL
AUTHOR(S): Ishihara, Takashi; Takahashi, Atsuya; Hayashi, Hidetoshi; Yamanaka, Hiroki; Kubota, Toshio
CORPORATE SOURCE: Department of Chemistry and Materials Technology, Kyoto Institute of Technology, Kyoto, 606-8585, Japan
SOURCE: Tetrahedron Letters (1998), 39(26), 4691-4694
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:122385

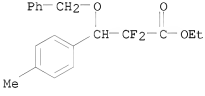
AB On treating the aluminum acetal intermediates, generated in situ from Et 3-benzyloxy-2,2-difluoroalkanoates or 3-benzyloxy-4,4,4-trifluorobutanoate and diisobutylaluminum hydride at −78 °C for 1 h, with allylic stannanes in the presence of titanium(IV) dichloride diisopropoxide at 0 °C for 8 h or at −30 °C for 6 h, the corresponding allylated products, polyfluoro-1,3-diol derivs., were obtained in good yields with high anti stereoselectivity.

IT 171251-57-3 210352-19-5 210352-20-8
210352-21-9 210352-22-0 210352-23-1
210352-25-3 210352-26-4 210352-27-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(stereoselective preparation of fluorinated 1,3-diols via aluminum acetals derived from β-alkoxy esters)

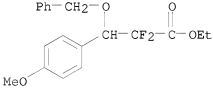
RN 171251-57-3 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-β-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



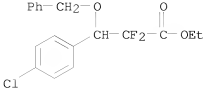
RN 210352-19-5 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-4-methyl-β-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



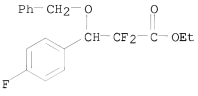
RN 210352-20-8 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-4-methoxy-β-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



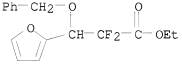
RN 210352-21-9 CAPLUS
CN Benzenepropanoic acid, 4-chloro-α,α-difluoro-β-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



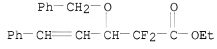
RN 210352-22-0 CAPLUS
CN Benzenepropanoic acid, α,α,4-trifluoro-β-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



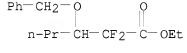
RN 210352-23-1 CAPLUS
CN 2-Furanpropanoic acid, α,α-difluoro-β-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



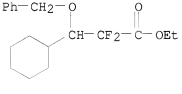
RN 210352-25-3 CAPLUS
CN 4-Pentenoic acid, 2,2-difluoro-5-phenyl-3-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



RN 210352-26-4 CAPLUS
CN Hexanoic acid, 2,2-difluoro-3-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



RN 210352-27-5 CAPLUS
CN Cyclohexanepropanoic acid, α,α-difluoro-β-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 19 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:330478 CAPLUS

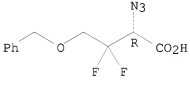
DOCUMENT NUMBER: 129:54564
TITLE: Synthesis of β-difluorine-containing amino acids
AUTHOR(S): Li, Keqiang; Leriche, Caroline; Liu, Hung-Wen
CORPORATE SOURCE: Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (1998), 8(9), 1097-1100
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:54564

AB A convenient strategy was developed to prepare several β,β-difluoroamino acids. 5,6-O-isopropylidene-L-isoascorbic acid was the starting material for the syntheses of 3,3-difluoro-L-homocysteine, 3,3-difluoro-L-homoserine and 3,3-difluoro-L-methionine. This approach has the potential to synthesize other β,β-difluoroamino acids.

IT 208755-96-8P 208755-97-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of β,β-difluoroamino acids)

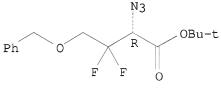
RN 208755-96-8 CAPLUS
CN Butanoic acid, 2-azido-3,3-difluoro-4-(phenylmethoxy)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 208755-97-9 CAPLUS
CN Butanoic acid, 2-azido-3,3-difluoro-4-(phenylmethoxy)-, 1,1-dimethylethyl ester, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 20 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:227021 CAPLUS
DOCUMENT NUMBER: 128:323921
TITLE: Lubricants and magnetic recording media using them
INVENTOR(S): Furuya, Takahiro; Sasamoto, Sayaka
PATENT ASSIGNEE(S): Hitachi Maxell, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10095991	A	19980414	JP 1996-254260	19960926

PRIORITY APPLN. INFO.: JP 1996-254260 19960926

AB Lubricants for magnetic recording media are compds. having F-containing polyether blocks of (CH2CF2CF2O)l and (CHFCF2CF2O)m, where l or m ≥1 and 2≤ l+m ≤200, and at least one terminal end having ammonium salt group. The lubricants provide improved lubricity and durability of magnetic recording media.

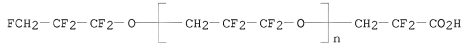
IT 206852-52-0P 206852-53-1P 206852-54-2P
206852-55-3P 206852-56-4P 206852-57-5P
206852-60-0P 206852-62-2P 206852-65-5P
206852-69-9P 206852-70-2P 206852-72-4P
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(lubricant; lubricants and magnetic recording media using them)

RN 206852-52-0 CAPLUS

CN 1-Octadecanamine, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

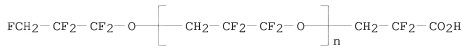
CRN 124-30-1
CMF C18 H39 N

RN 206852-53-1 CAPLUS

CN 9-Octadecen-1-amine, (9Z)-, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

CM 1

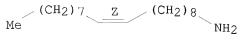
CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

CRN 112-90-3
CMF C18 H37 N

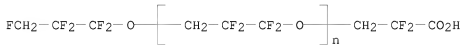
Double bond geometry as shown.



RN 206852-54-2 CAPLUS
CN 1-Octanamine, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

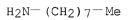
CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

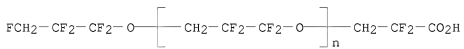
CRN 111-86-4
CMF C8 H19 N



RN 206852-55-3 CAPLUS
CN Poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)], α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



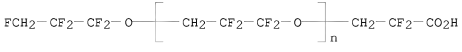
CM 2

CRN 121-44-8
CMF C6 H15 N

RN 206852-56-4 CAPLUS
CN 1-Octanamine, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

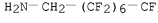
CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

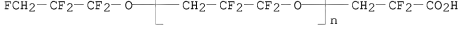
CRN 307-29-9
CMF C8 H4 F15 N



RN 206852-57-5 CAPLUS
CN Benzenamine, 4-phenoxy-, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

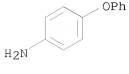
CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

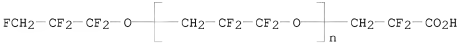
CRN 139-59-3
CMF C12 H11 N O



RN 206852-60-0 CAPLUS
CN 1,3-Benzodioxole-5-methanamine, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

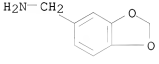
CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

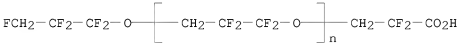
CRN 2620-50-0
CMF C8 H9 N O2



RN 206852-62-2 CAPLUS
CN Benzenamine, 4-methoxy-, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

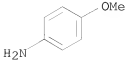
CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

CRN 104-94-9
CMF C7 H9 N O

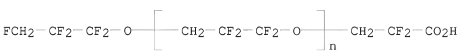


RN 206852-65-5 CAPLUS
CN Benzenamine, 4-(trifluoromethyl)-, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-

tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

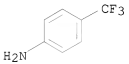
CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

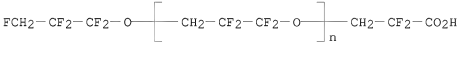
CRN 455-14-1
CMF C7 H6 F3 N



RN 206852-69-9 CAPLUS
CN [1,1'-Biphenyl]-4-amine, compd. with α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

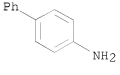
CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS

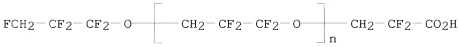


CM 2

CRN 92-67-1
CMF C12 H11 N



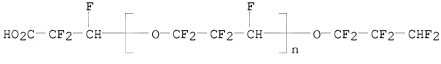
RN 206852-70-2 CAPLUS
CN Poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)], α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)-, ammonium salt (9CI) (CA INDEX NAME)



RN 206852-72-4 CAPLUS
CN 1-Octadecanamine, compd. with α-(2-carboxy-1,2,2-trifluoroethyl)-ω-(1,1,2,2,3,3-hexafluoropropoxy)poly[oxy(1,1,2,2,3-pentafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

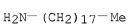
CM 1

CRN 206852-71-3
CMF (C3 H F5 O)n C6 H3 F9 O3
CCI PMS

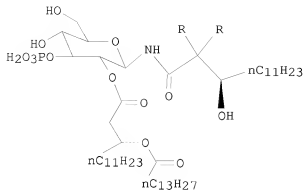


CM 2

CRN 124-30-1
CMF C18 H39 N



L10 ANSWER 21 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:346080 CAPLUS
DOCUMENT NUMBER: 127:50911
TITLE: The first syntheses of GLA-60 positional isomers and their biological activities
AUTHOR(S): Shiozaki, Masao; Arai, Masami; Macindoe, Wallace M.; Mochizuki, Takashi; Wakabayashi, Takanori; Kurakata, Shin-Ichi; Tatsuta, Tohru; Maeda, Hiroaki; Nishijima, Masahiro
CORPORATE SOURCE: Exploratory Chemistry Research Laboratories, Sankyo Co., Ltd., Tokyo, 140, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1997), 70(5), 1149-1161
CODEN: BCSJA8; ISSN: 0009-2673
PUBLISHER: Chemical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

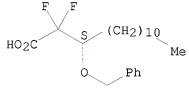
AB Six GLA-60 positional isomers , e.g. I (R = H, F), were synthesized to investigate their biol. activities. I (R = H) exhibited potent agonistic activity, on TNFα production toward human monoblastic U937 cells. TNFα production (% control; 10 ng ml-1 of LPS = 100) of I (R = H) in the concentration of 10 μM was 611, and that of lipid A in the same concentration was
651. In contrast, the difluorinated compds. showed little agonistic activity on TNFα production

IT 191157-59-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(syntheses of GLA-60 positional isomers and their agonistic activities)

RN 191157-59-2 CAPLUS

CN Tetradecanoic acid, 2,2-difluoro-3-(phenylmethoxy)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 22 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:250727 CAPLUS

DOCUMENT NUMBER: 126:240583

TITLE: Magnetic recording media and the apparatus using them

INVENTOR(S): Koike, Asako; Shoji, Saburo; Nakakawaji, Takayuki; Murakami, Juko

PATENT ASSIGNEE(S): Hitachi Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09035252	A	19970207	JP 1995-181415	19950718
PRIORITY APPLN. INFO.:			JP 1995-181415	19950718

AB Magnetic recording media having a surface layer formed on a recording layer in which information can be recorded or regenerated by a magnetic head comprise forming a lubricating layer on the surface of recording layer, where the lubricating layer contains the mols. having an adsorption-increasing portion at the terminal end for increasing the adsorption between the terminal and substrate and an aggregation (cohesion)-increasing portion in the middle part of mol. chain for increasing the cohesive energy between adjacent mols., two mol. portions comprising ≥1 of organic compds. selected from aromatic ring, condensed ring or N-containing aromatic ring compds.

IT 188432-12-4 188432-21-5
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(film; magnetic recording media with recording layer coated by lubricant)

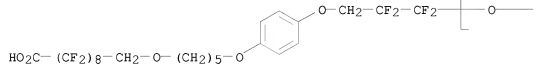
RN 188432-12-4 CAPLUS

CN Benzenamine, 2-methoxy-, compd. with α-[3-[4-[[5-[(9-carboxy-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluorononyl)oxy]pentyl]oxy]phenoxy]-1,1,2,2-tetrafluoropropyl]-ω-(heptafluoropropoxy)poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)] (1:1) (9CI) (CA INDEX NAME)

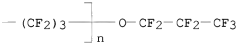
CM 1

CRN 188432-11-3
CMF (C3 F6 O)n C27 H19 F27 O6
CCI PMS

PAGE 1-A



PAGE 1-B



CM 2

CRN 90-04-0
CMF C7 H9 N O

RN 188432-21-5 CAPLUS

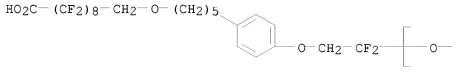
CN Benzenamine, 2-methoxy-, compd. with α-[2-[4-[5-[(9-carboxy-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluorononyl)oxy]pentyl]phenoxy]-1,1-difluoroethyl]-ω-[2-[4-[5-[(9-carboxy-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluorononyl)oxy]pentyl]phenyl]-1,1,2,2-tetrafluoroethoxy]poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-

propanediyl)] (2:1) (9CI) (CA INDEX NAME)

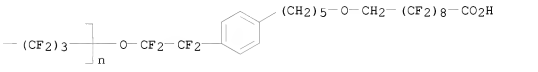
CM 1

CRN 188432-20-4
CMF (C3 F6 O)n C46 H36 F38 O8
CCI PMS

PAGE 1-A



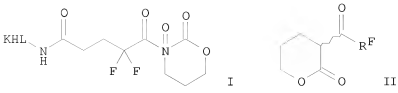
PAGE 1-B



CM 2

CRN 90-04-0
CMF C7 H9 N O

L10 ANSWER 23 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:592222 CAPLUS
DOCUMENT NUMBER: 125:328451
TITLE: Preparation of heterocyclic compounds via carbon-carbon bond formation catalyzed by an antibody
AUTHOR(S): Kitazume, Tomoya; Tsukamoto, Takashi; Murata, Kouichi; Yoshimura, Koutaro
CORPORATE SOURCE: Department of Bioengineering, Tokyo Institute of Technology Nagatsuta, Mkdori-ku, Yokohama, 226, Japan
SOURCE: Journal of Molecular Catalysis B: Enzymatic (1996), 2(1), 27-31
CODEN: JMCEF8; ISSN: 1381-1177
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:328451
GI



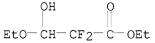
I II

AB A monoclonal antibody, elicited by a transition-state analog (I; KHL = keyhole limpet hemocyanin), acted as an enzyme-like catalyst for the formation of a carbon-carbon bond in the cyclization of diesters RFCO2(CH2)4CO2Me [RF = CHF2, CF3] to give chiral δ-lactones II. The generation of a carbanion by the action of an abzyme, and the internal nucleophilic attack on an activated functional group, such as a carbonyl and/or imine group with an attached fluoroalkyl group, are described. The method gave (+)-II [RF = CHF2] in 64% yield and >56% ee, and (+)-II [RF = CF3] in 57% yield and >54% ee.

IT 141546-97-6, Ethyl 3-ethoxy-2,2-difluoro-3-hydroxypropionate
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material for antigen; preparation of (fluoroacetyl)pyrone derivs. from (fluoroacetoxy)pentanoates via antibody-catalyzed carbon-carbon bond formation)

RN 141546-97-6 CAPLUS

CN Propanoic acid, 3-ethoxy-2,2-difluoro-3-hydroxy-, ethyl ester (CA INDEX NAME)



L10 ANSWER 24 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:328120 CAPLUS

DOCUMENT NUMBER: 125:11369

TITLE: Preparation of N-alkanoyl-3-O-phosphono-1-deoxy-1-amino-D-glucose derivatives as antitumor agents and immunostimulants

INVENTOR(S): Shiosaki, Masao; Arai, Masami; Uooresu, Matsukindoo; Kurakata, Shinichi; Tatsuta, Tooru; Hiraoka, Tetsuo; Nishijima, Masahiro; Akamatsu, Minoru

PATENT ASSIGNEE(S): Sankyo Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

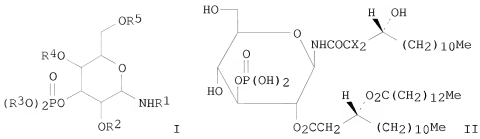
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08053486	A	19960227	JP 1994-189330	19940811

PRIORITY APPLN. INFO.: JP 1994-189330 19940811

OTHER SOURCE(S): MARPAT 125:11369

GI



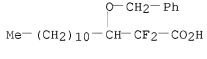
I II

AB The title compds. [I; R1, R2 = C6-20 alkanoyl optionally having 1-5 substituents selected from a group of substituents such as halo, (un)protected OH, and (un)substituted C6-20 alkanoyloxy; R3 = H, C7-11 aralkyl or C6-10 aryl optionally having 1 or 2 substituents selected from C1-4 alkoxy and NO2; R4, R5 = H, HO-protecting group], which have excellent macrophage-activating activity and are lipopolysaccharide agonists useful as antitumor agents and immunostimulants and lipopolysaccharide antagonists useful as immunosuppressants and antiinflammatories and for the treatment of autoimmune diseases, are prepared Thus, azidation of pentaacetyl-β-D-glucose with trimethylsilyl azide in the presence of SnCl4 in CH2Cl2 at room temperature (93.6%) and hydrogenation of the resulting 1-deoxy-2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl azide in the presence of Pd(OH)2/C in EtOH (44.4%) gave 1-deoxy-2,3,4,6-tetra-O-acetyl-β-D-glucopyranosylamine, which underwent N-acylation with (3R)-3-benzyloxytetradecanoyl chloride in CH2Cl2 containing Et3N, deacetylation with NaOMe/MeOH, 4,6-O-isopropylidenation with dimethoxypropane in the presence of pyridinium p-toluenesulfonate in DMF, 2-O-esterification with (3R)-3-tetradecanoyloxytetradecanoic acid using DCC and 4-dimethylaminopyridine in Et2O, 3-O-phosphorylation with di-Ph chlorophosphate in the presence of 4-dimethylaminopyridine in CH2Cl2, deisopropylidenation with 90% aqueous AcOH at 60° for 5 h, and two-step hydrogenolysis using 10% Pd-C and then PtO2 in THF to give the title compound (II; X = H). II (X = F) showed ED50 of 0.44 μM for the production of tumor necrosis factor α (TNF-α) in mouse macrophage J774.1 cells in the absence of lipopolysaccharide as compared to lipopolysaccharide-induced TNF-α production (100%) in the macrophage.

IT 177086-14-5, 2,2-Difluoro-3-benzyloxytetradecanoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of alkanoyl(alkanoylamino)phosphonodeoxyglucose derivs. as antitumor agents, immunostimulants, immunosuppressants, and antiinflammatories)

RN 177086-14-5 CAPLUS

CN Tetradecanoic acid, 2,2-difluoro-3-(phenylmethoxy)- (CA INDEX NAME)



L10 ANSWER 25 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:1003905 CAPLUS

DOCUMENT NUMBER: 124:86700

TITLE: Synthesis of chiral difluorinated[6]-gingerol

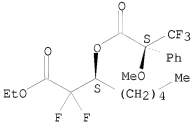
AUTHOR(S): Fukuda, Hiroshi; Tetsu, Makio; Kitazume, Tomoya

CORPORATE SOURCE: Dep. Bioeng., Tokyo Inst. Technol., Yokohama, 226, Japan

SOURCE: Tetrahedron (1996), 52(1), 157-64
CODEN: TETRAB; ISSN: 0040-4020

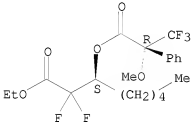
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:86700
AB Total synthesis of chiral difluorinated[6]-gingerol, (R)- or (S)-4-HO-3-MeOC6H3CH2CH2COCF2CH(OH)(CH2)4Me, using key intermediates (R)-(+)- and (S)-(-)-Et 2,2-difluoro-3-hydroxyoctanoates, obtained via enzymic resolution with olipase/4S (Rhizopus japonicus) is described.
IT 172546-97-3P 172721-85-6P
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(total synthesis of chiral difluorinated gingerol via enzymic resolution of difluorohydroxyoctanoate)
RN 172546-97-3 CAPLUS
CN Benzeneacetic acid, α-methoxy-α-(trifluoromethyl)-, 1-(2-ethoxy-1,1-difluoro-2-oxoethyl)hexyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



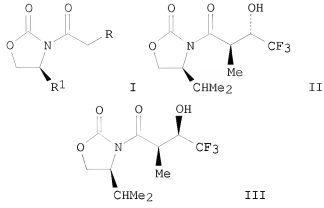
RN 172721-85-6 CAPLUS
CN Benzeneacetic acid, α-methoxy-α-(trifluoromethyl)-, 1-(2-ethoxy-1,1-difluoro-2-oxoethyl)hexyl ester, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 26 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:1003897 CAPLUS
DOCUMENT NUMBER: 124:202076
TITLE: Reversal of stereoselectivity in the Evans aldol reaction of α,α-difluoro and α,α,α-trifluoro carbonyl compounds
AUTHOR(S): Iseki, Katsuhiko; Oishi, Satoshi; Kobayashi, Yoshiro
CORPORATE SOURCE: MEC Lab., Daikin Ind. Inc., Tsukuba, 305, Japan
SOURCE: Tetrahedron (1996), 52(1), 71-84
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

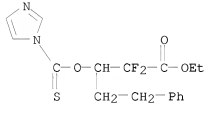
OTHER SOURCE(S): CASREACT 124:202076
GI



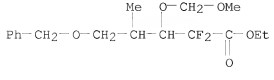
AB The Evans aldol reaction of hexafluoroacetone and trifluoroacetaldehyde causes complete reversal of diastereofacial selectivity. The boron enolates derived from N-acyl oxazolidinones I (R = Me, CH2Ph, Bu, R1 = CHMe2, CH2Ph) react with F3CCHO to give anti and "non-Evans" syn aldols, e.g. II and III, resp., with stereoselectivity in the range of 7:3-17:3. With Ph(CH2)3CF2CHO, a small amount of the normal syn aldol was formed; however, the anti aldol was the major product.

IT 173974-89-5P 174172-44-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereochem. of Evans aldol reaction of acyl oxazolidinones with fluoro carbonyl compds)

RN 173974-89-5 CAPLUS
CN Benzenepentanoic acid, α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester (CA INDEX NAME)



RN 174172-44-2 CAPLUS
CN Pentonic acid, 2,4-dideoxy-2,2-difluoro-3-O-(methoxymethyl)-4-methyl-5-O-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

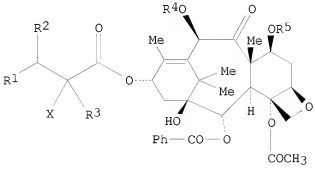


L10 ANSWER 27 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:973637 CAPLUS

DOCUMENT NUMBER: 124:9049
TITLE: Preparation of taxol derivatives as antitumors
INVENTOR(S): Terasawa, Hirofumi; Soga, Tsunehiko; Uoto, Koichi
PATENT ASSIGNEE(S): Daiichi Seiyaku Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07233159	A	19950905	JP 1994-314474	19941219
JP 3400582	B2	20030428		
PRIORITY APPLN. INFO.:			JP 1994-314474 A	19941219
			JP 1993-319888	19931220

OTHER SOURCE(S): MARPAT 124:9049
GI



I

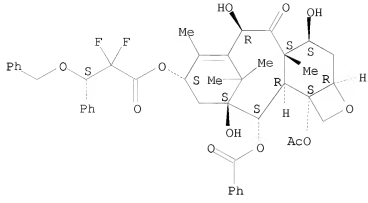
AB The title compds. [I; X = halo; R1 = protected amino, Z-R6; R6 = H, (un)substituted alkyl, (un)substituted alkenyl, etc.; Z = NH, O, CO2, etc.; R2 = (un)substituted alkyl, (un)substituted alkenyl, aryl, etc.; R3 = H, alkyl, halo; R4 = R5 = H, protecting group; R5 = H, protecting group] are prepared Thus, a mixture of 7,10-bis(2,2,2-trichloroethoxycarbonyl)-10-deacetylbaccatin III and 3-(tert-butoxycarbonylamino)-2,2-difluoro-3-phenylpropionic acid (preparation given) in toluene containing 4-(dimethylamino)pyridine and di-2-pyridyl carbonate was heated at 80° for 60 h to give I [R1 = tBu-O2C-NH, R2 = Ph, R3 = X = fluoro, R4 = R5 = CO2-CH2-CCl3], which was treated with zinc in HOAc-MeOH at 60° for 15 min to give I [R1 = tBu-O2C-NH, R2 = Ph, R3 = X = fluoro, R4 = R5 = H]. In an in vitro study using P388 tumor cells, this had a GI50 value (concentration inhibiting 50% of tumor cell growth) of 21.0 ng/mL vs. taxol's 30.4 ng/mL.

IT 171250-98-9P 171250-99-0P 171338-89-9P
171338-90-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of taxol derivs. as antitumors)

RN 171250-98-9 CAPLUS

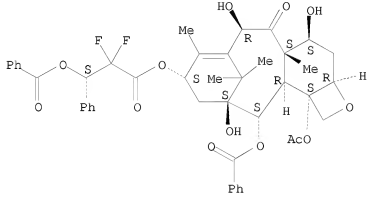
CN Benzenepropanoic acid, α,α-difluoro-β-(phenylmethoxy)-, 12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,6,11-trihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2aα,4β,4aβ,6β,9α(S*),11α,12α,12a.alpha.,12bα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



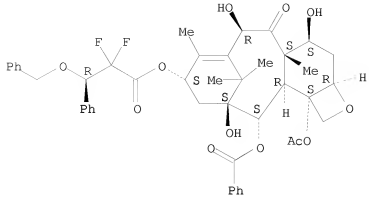
RN 171250-99-0 CAPLUS
CN Benzenepropanoic acid, β-(benzoyloxy)-α,α-difluoro-, 12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,6,11-trihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2aα,4β,4aβ,6β,9α(S*),11α,12α,12a.alpha.,12bα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



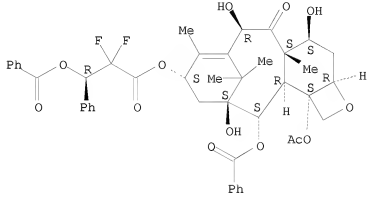
RN 171338-89-9 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-β-(phenylmethoxy)-, 12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,6,11-trihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2aα,4β,4aβ,6β,9α(R*),11α,12α,12a.alpha.,12bα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



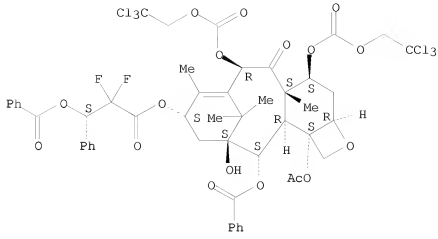
RN 171338-90-2 CAPLUS
CN Benzenepropanoic acid, β-(benzoyloxy)-α,α-difluoro-, 12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,6,11-trihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2aα,4β,4aβ,6β,9α(R*),11α,12α,12a.alpha.,12bα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

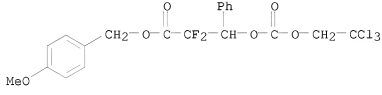


IT 171251-25-5P 171251-53-9P 171251-54-0P
171251-57-3P 171251-58-4P 171251-59-5P
171251-60-8P 171339-15-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of taxol derivs. as antitumors)
RN 171251-25-5 CAPLUS
CN Benzenepropanoic acid, β-(benzoyloxy)-α,α-difluoro-, 12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-4,6-bis[[(2,2,2-trichloroethoxy)carbonyl]oxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2aα,4β,4aβ,6β,9α(S*),11α,12α,12aα,12bα]]- (9CI) (CA INDEX NAME)

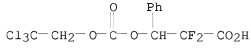
Absolute stereochemistry.



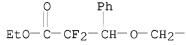
RN 171251-53-9 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-β-[[(2,2,2-trichloroethoxy)carbonyl]oxy]-, (4-methoxyphenyl)methyl ester (CA INDEX NAME)



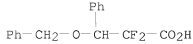
RN 171251-54-0 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-β-[[(2,2,2-trichloroethoxy)carbonyl]oxy]- (CA INDEX NAME)



RN 171251-57-3 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-β-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)

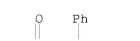


RN 171251-58-4 CAPLUS
CN Benzenepropanoic acid, α,α-difluoro-β-(phenylmethoxy)- (CA INDEX NAME)

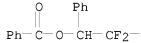


RN 171251-59-5 CAPLUS

CN Benzenepropanoic acid, β-(benzoyloxy)-α,α-difluoro-, ethyl ester (CA INDEX NAME)

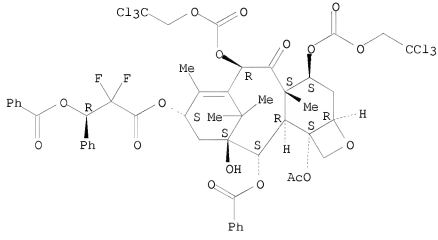


RN 171251-60-8 CAPLUS
CN Benzenepropanoic acid, β-(benzoyloxy)-α,α-difluoro- (CA INDEX NAME)



RN 171339-15-4 CAPLUS
CN Benzenepropanoic acid, β-(benzoyloxy)-α,α-difluoro-, 12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-4,6-bis[[(2,2,2-trichloroethoxy)carbonyl]oxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2aα,4β,4aβ,6β,9α(R*),11α,12α,12aα,12bα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 28 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	1995:740928 CAPLUS
DOCUMENT NUMBER:	123:127788
TITLE:	Mesomorphic compound, liquid crystal composition containing the compound, liquid crystal device using the composition, liquid crystal apparatus and display method.
INVENTOR(S):	Shinichi, Nakamura; Takao, Takiguchi; Takashi, Iwaki; Takeshi, Togano; Yoko, Kosaka
PATENT ASSIGNEE(S):	Canon K. K., Japan
SOURCE:	Eur. Pat. Appl., 84 pp. CODEN: EPXXDW
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 640676	A1	19950301	EP 1994-113508	19940830
EP 640676	B1	19990120		
R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 07097354	A	19950411	JP 1993-237215	19930831
JP 3230024	B2	20011119		
JP 07133244	A	19950523	JP 1993-243580	19930906
JP 3216752	B2	20011009		
US 5653913	A	19970805	US 1996-628446	19960405
PRIORITY APPLN. INFO.:			JP 1993-237215	A 19930831
			JP 1993-243580	A 19930906
			US 1994-297840	B1 19940830

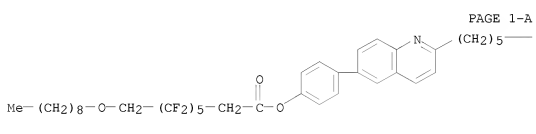
OTHER SOURCE(S): MARPAT 123:127788

AB A mesomorphic compound CmH2m+1O(CH2)n(CH2)p(CH2)q-Y1-A1-R1 [R1 = H, halogen, CN, or a linear, branched or cyclized alkyl group having 1-30 C atoms capable of including at least one -CH2- group which can be replaced with -O-, -S-, -CO-, -CH(Cl)-, -CH(CN)-, -CCH3(CN)-, -CH:CH- or -C.tplbond.C- provided that heteroatoms are not adjacent to each other and capable of including at least one H which can be replaced with F; m, n, p and q = 1-16 provided that m + n + p + q ≤ 18; Y1 denotes a single bond, -O-, -CO-, -COO-, -OCO-, -CH:CH or -C.tplbond.C-; A1 = -A2-, -A2-X1-A3- or -A2-X1-A3-X2-A4 in which A2, A3 and A4 independently denote a divalent cyclic group; X1, X2 = a single bond, -COO-, -OCO-, -CH2O-, -OCH2-, -CH2CH2-, -CH:CH- or -C.tplbond.C-] having ≥2 ether groups between alkylene groups in a specific alkoxy perfluoroalkyl terminal group is suitable as a component for a liquid crystal composition providing improved response characteristics and a high contrast. A liquid crystal device is constituted by disposing the liquid crystal composition between a pair of substrates. The liquid crystal device is used as a display panel constituting a liquid crystal apparatus providing good display characteristics.

IT 166439-53-8
RL: MOA (Modifier or additive use); USES (Uses)
(perfluoroalkyl mesomorphic compound for liquid crystal composition)

RN 166439-53-8 CAPLUS

CN Octanoic acid, 3,3,4,4,5,5,6,6,7,7-decafluoro-8-(nonyloxy)-, 4-(2-hexyl-6-quinolinyl)phenyl ester (CA INDEX NAME)



L10 ANSWER 29 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:650926 CAPLUS
DOCUMENT NUMBER: 121:250926
TITLE: Biochemical reduction of 3-oxoalkanoic esters by a bottom-fermentation yeast, Saccharomyces cerevisiae IFO 0565
AUTHOR(S): Mochizuki, Naoki; Sugai, Takeshi; Ohta, Hiromichi

CORPORATE SOURCE: Central Res. Lab., Tokyo, 143, Japan
SOURCE: Bioscience, Biotechnology, and Biochemistry (1994), 58(9), 1666-70
CODEN: BBBIEJ; ISSN: 0916-8451
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 121:250926

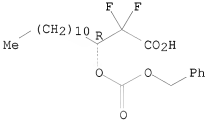
AB The scope and limitation of a bottom-fermentation yeast (Saccharomyces cerevisiae IFO 0565) toward the reduction of 3-oxoalkanoic esters were examined The substrate specificity of this microorganism for various kinds of 3-oxoalkanoic esters was studied. This microorganism was distinct from conventional bakers' yeast in terms of its selectivity in the reduction and its high expression of a hydrolytic enzyme. 3-Oxoalkanoic esters with an aromatic substituent, a halogen substituted 3-oxoalkanoic ester, and aliphatic longer-chain 3-oxoalkanoic ester and its α,α-difluoro analog were also accepted by this microorganism. The products are useful intermediates in the synthesis of physiol. active compds.

IT 141507-38-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 141507-38-2 CAPLUS

CN Tetradecanoic acid, 2,2-difluoro-3-[[(phenylmethoxy)carbonyl]oxy]-, (R)- (9CI) (CA INDEX NAME)

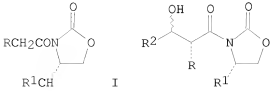
Absolute stereochemistry.



L10 ANSWER 30 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:323330 CAPLUS
DOCUMENT NUMBER: 120:323330
TITLE: Reversal of stereoselectivity in the Evans aldol reaction of α,α-difluoro and α,α,α-trifluoro carbonyl compounds
AUTHOR(S): Iseki, Katasuhiko; Oishi, Satoshi; Taguchi, Takeo; Kobayashi, Yoshiro
CORPORATE SOURCE: MEC Lab., Daikin Ind. Ltd., Tsukuba, 305, Japan
SOURCE: Tetrahedron Letters (1993), 34(50), 8147-50
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 120:323330

GI



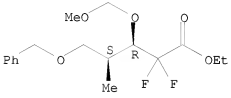
AB The Evans aldol reaction of hexafluoroacetone and trifluoroacetaldehyde causes reversal of stereoselectivity. The boron enolate derived from oxazolidinones I (R = Me, PhCH2, Bu, R1 = Me2CH, PhCH2) react with trifluoroacetaldehyde to give anti and syn "non-Evans" aldols II (R2 = CF3) with stereoselectivities of 7:3-17:3.

IT 155245-76-4P 155245-77-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate in study of stereoselective aldol condensations of oxazolidinone boron enolates with fluoro aldehydes)

RN 155245-76-4 CAPLUS

CN L-threo-Pentonic acid, 2,4-dideoxy-2,2-difluoro-3-O-(methoxymethyl)-4-methyl-5-O-(phenylmethyl)-, ethyl ester (CA INDEX NAME)

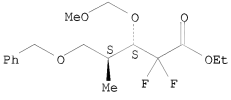
Absolute stereochemistry.



RN 155245-77-5 CAPLUS

CN L-erythro-Pentonic acid, 2,4-dideoxy-2,2-difluoro-3-O-(methoxymethyl)-4-methyl-5-O-(phenylmethyl)-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 31 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:322786 CAPLUS

DOCUMENT NUMBER: 120:322786

TITLE: Free-radical approach to the synthesis of fluorine-substituted cyclic compounds. Cyclization reactions of trifluoromethyl- and difluoromethylene-substituted carbon radicals

AUTHOR(S): Morikawa, Tsutomu; Uejima, Masayuki; Kobayashi, Yoshiro; Taguchi, Takeo

CORPORATE SOURCE: Tokyo Coll. Pharm., Tokyo, 192-03, Japan

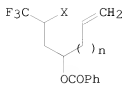
SOURCE: Journal of Fluorine Chemistry (1993), 65(1-2), 79-89
CODEN: JFLCAR; ISSN: 0022-1139

DOCUMENT TYPE: Journal

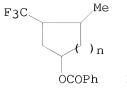
LANGUAGE: English

OTHER SOURCE(S): CASREACT 120:322786

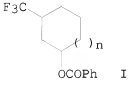
GI



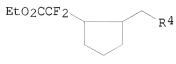
I



II



III



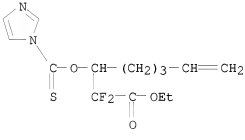
IV

AB Trifluoromethyl- or difluoromethylene-substituted alkyl radicals (CF3.ovrhdot.C- or CF2.ovrhdot.C-) and trifluoromethyl-substituted alkenyl radicals (CF3.ovrhdot.C:C-) cyclize effectively intramolecularly to allow the synthesis of fluorine-substituted cyclic compds. Radical reactions of thiocarbonylimidazolide derivs. I (7a,b, 13a-d, 14e,f) gave CF3-substituted cyclopentane derivs. II (22a, 25a-d) or cyclohexane derivs. III (22b, 26e,f) via 5- or 6-exo selective cyclization. CF3-substituted cyclopentene derivs. (27a,b) or cyclohexene derivs. (27c) were also obtained from alkenyl iodides (17a-c) via radical cyclization. Cyclopentane derivs. IV (R4 = H) (29a-f, 31) containing the CF2CO2Et group were synthesized by Reformatskii reaction and radical cyclization.

IT 155226-17-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 155226-17-8 CAPLUS

CN 7-Octenoic acid, 2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester (CA INDEX NAME)

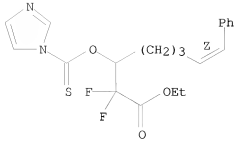


IT 155226-41-8 155226-43-0 155226-45-2
155226-47-4 155226-49-6 155226-63-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(radical cyclization reaction of)

RN 155226-41-8 CAPLUS

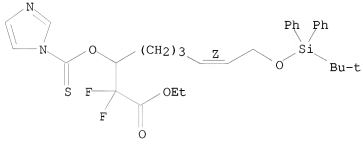
CN 7-Octenoic acid, 2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-8-phenyl-, ethyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

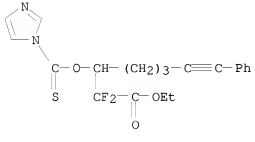


RN 155226-43-0 CAPLUS
CN 7-Nonenoic acid, 9-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester, (Z)- (9CI) (CA INDEX NAME)

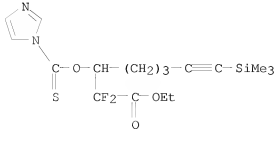
Double bond geometry as shown.



RN 155226-45-2 CAPLUS
CN 7-Octynoic acid, 2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-8-phenyl-, ethyl ester (CA INDEX NAME)

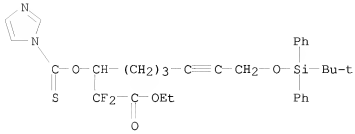


RN 155226-47-4 CAPLUS
CN 7-Octynoic acid, 2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-8-(trimethylsilyl)-, ethyl ester (CA INDEX NAME)



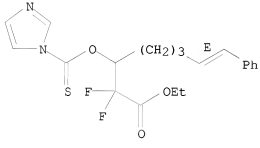
RN 155226-49-6 CAPLUS

CN 7-Nonynoic acid, 9-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester (CA INDEX NAME)



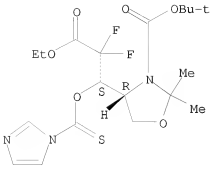
RN 155226-63-4 CAPLUS
CN 7-Octenoic acid, 2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-8-phenyl-, ethyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



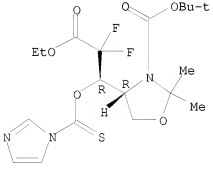
L10 ANSWER 32 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:164839 CAPLUS
DOCUMENT NUMBER: 120:164839
TITLE: Synthesis of 4,4-difluoro-L-arginine
AUTHOR(S): Kim, Kyoung Soon; Qian, Ligang
CORPORATE SOURCE: Bristol-Myers Squibb Pharm. Res. Inst., Princeton, NJ, 08543-4000, USA
SOURCE: Tetrahedron Letters (1993), 34(45), 7195-6
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 120:164839
AB Preparation of 4,4-difluoro-L-arginine (I) as an L-arginine surrogate is described starting with Boc-D-Ser-OH (Boc = Me3CO2C). The pKa of guanidine moiety of I was 11.2, compared to 13.2 for the arginine guanidine group.
IT 153335-04-7P 153335-05-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(intermediate in preparation of difluoroarginine)
RN 153335-04-7 CAPLUS
CN 4-Oxazolidinepropanoic acid, 3-[(1,1-dimethylethoxy)carbonyl]-α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-2,2-dimethyl-, ethyl ester, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 153335-05-8 CAPLUS
CN 4-Oxazolidinepropanoic acid, 3-[(1,1-dimethylethoxy)carbonyl]-α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-2,2-dimethyl-, ethyl ester, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



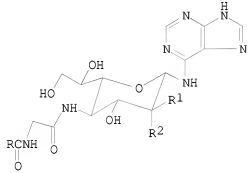
L10 ANSWER 33 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:671632 CAPLUS
DOCUMENT NUMBER: 119:271632
TITLE: Spicamycin derivatives and the use thereof
INVENTOR(S): Otake, Noboru; Kawai, Hiroyuki; Kawasaki, Tomiko; Odagawa, Atsuo; Kamishohara, Masaru; Sakai, Teruyuki
PATENT ASSIGNEE(S): Kirin Beer K. K., Japan
SOURCE: Eur. Pat. Appl., 99 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 525479	A1	19930203	EP 1992-111782	19920710
EP 525479	B1	19971105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
JP 05186494	A	19930727	JP 1992-110665	19920403
JP 2783722	B2	19980806		
NO 9202674	A	19930113	NO 1992-2674	19920708
NO 178500	B	19960102		
NO 178500	C	19960410		
US 5461036	A	19951024	US 1992-910640	19920708
FI 105815	B1	20001013	FI 1992-3170	19920709
CA 2073567	A1	19930113	CA 1992-2073567	19920710

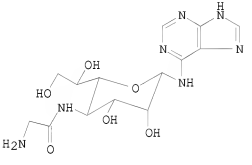
CA 2073567	C	19980505			
AU 9219600	A	19930114	AU 1992-19600		19920710
AU 657551	B2	19950316			
HU 61773	A2	19930301	HU 1992-2285		19920710
HU 221808	B1	20030128			
ZA 9205175	A	19930428	ZA 1992-5175		19920710
AT 159948	T	19971115	AT 1992-111782		19920710
ES 2111019	T3	19980301	ES 1992-111782		19920710
US 5631238	A	19970520	US 1995-429303		19950426
PRIORITY APPLN. INFO.:			JP 1991-198903	A	19910712
			JP 1991-326845	A	19911115
			JP 1992-110665	A	19920403
			US 1992-910640	A3	19920708

OTHER SOURCE(S): MARPAT 119:271632

GI



I



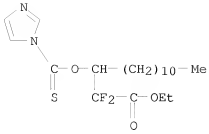
II

AB Spicamycin derivs. I [R = alkenyl, haloalkyl, Me(CH2)nCHOH, Me(CH2)n-1CH(OH)CH2, n = 9-13; Me(CH2)a = CO2(CH2)b b = 10-15; Me(CH2)d-1CHOSO2(CH2)cMe, c = 0-3, d = 10-15; Me3Si(CH2)10, Me3SiC.tplbond.C(CH2)8, Me(CH2)5CO(CH2)10, alkynylfurans or thiophenes, R1, R2 = H, OH], useful as antitumor agents, were prepared using derivative II as a starting material. Thus, esterifying trans-2-dodecenoic acid with p-O2NC6H4OH in DMF initiated by N,N-dicyclohexylcarbodiimide gave the corresponding ester which was treated with II to give spicamycin derivative I [R = Me(CH2)8CH:CH, R1 = H, R2 = OH]. The latter was effective against human colon cancer (COL-1) at a maximum dose 18/mg/kg/day with an 86% tumor growth inhibition rate.

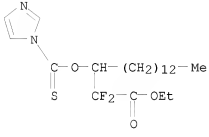
IT 151309-47-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and reduction by tributyltin hydride)

RN 151309-47-6 CAPLUS

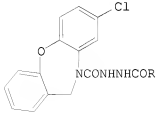
CN Tetradecanoic acid, 2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester (CA INDEX NAME)



IT 151309-51-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 151309-51-2 CAPLUS
CN Hexadecanoic acid, 2,2-difluoro-3-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester (CA INDEX NAME)



L10 ANSWER 34 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:671122 CAPLUS
DOCUMENT NUMBER: 119:271122
TITLE: N-Substituted dibenzoxazepines as analgesic PGE2 antagonists
AUTHOR(S): Hallinan, E. Ann.; Hagen, Timothy J.; Husa, Robert K.; Tsymbalov, Sofya; Rao, Shashidhar N.; vanHoeck, Jean Pierre; Rafferty, Michael F.; Stapelfeld, Awilda; Savage, Michael A.; Reichman, Melvin
CORPORATE SOURCE: Dep. Chem. Res., Searle, Skokie, IL, 60077, USA
SOURCE: Journal of Medicinal Chemistry (1993), 36(22), 3293-9
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:271122
GI



I

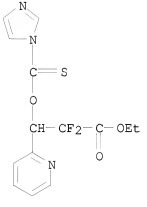
AB Analogs of 8-chlorodibenz[b,f][1,4]oxazepine-10(11H)-carboxylic acid, 2-acetylhydrazide (I, R = Me) (SC-19220) in which the acetyl moiety has

been replaced with pyridylpropionyl groups and their homologs, were prepared, as illustrated by I [R = 2-(4-pyridyl)ethyl (SC-51089), 1,1-difluoro-2-hydroxy-2-(2-pyridyl)ethyl (SC-51234A)]. These and other members of this series were effective analgesics and prostaglandin E2 (PGE2) antagonists of the EP1 receptor subtype. Structure activity relationships within this series are discussed.

IT 146033-37-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and radical deoxygenation of)

RN 146033-37-6 CAPLUS

CN 2-Pyridinepropanoic acid, α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester (CA INDEX NAME)



L10 ANSWER 35 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:602963 CAPLUS

DOCUMENT NUMBER: 119:202963

TITLE: Preparation and reaction of difluorinated malonaldehydic acid derivatives: a new route to functionalized α,α-difluorinated esters and amides

AUTHOR(S): Tsukamoto, Takashi; Kitazume, Tomoya

CORPORATE SOURCE: Dep. Bioeng., Tokyo Inst. Technol., Yokohama, 227, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1993), (10), 1177-81
CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 119:202963

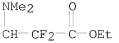
AB Formylation of difluorinated Reformatskii reagents derived from chlorodifluoroacetic acid derivs. ClCF2COX (X = OEt, NEt2) provided β,β-difluorinated N,O-acetals EtOCH(NMe2)CF2COX (same X), which were easily converted into the corresponding Et hemiacetals EtOCH(OH)CF2COX (same X). These compds. were effective aldehyde equivs. and reacted with active methylene compds., nitromethane, or phosphonoacetate to afford α,α-difluoro-functionalized esters and amides, e.g., (EtO2C)2CHCH(OH)CF2COX (same X) in good yields.

IT 141546-96-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of, to hemiacetal)

RN 141546-96-5 CAPLUS

CN Propanoic acid, 3-(dimethylamino)-3-ethoxy-2,2-difluoro-, ethyl ester (CA

INDEX NAME)



IT 141546-97-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with nucleophiles)
RN 141546-97-6 CAPLUS
CN Propanoic acid, 3-ethoxy-2,2-difluoro-3-hydroxy-, ethyl ester (CA INDEX NAME)

L10 ANSWER 36 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:581085 CAPLUS
DOCUMENT NUMBER: 119:181085
TITLE: Preparation of 24,24-difluoro-5,7-cholestadiene-1α,3β,25-triol
INVENTOR(S): Takayama, Hiroaki; Konno, Katsuhiro; Hayashi, Takaaki
PATENT ASSIGNEE(S): Nippon Oils & Fats Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05059094	A	19930309	JP 1991-250336	19910904

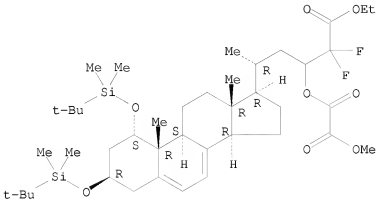
PRIORITY APPLN. INFO.: JP 1991-250336 19910904
OTHER SOURCE(S): CASREACT 119:181085; MARPAT 119:181085
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compound [I] is prepared, e.g., via Grignard reaction of the cholestadiene-24-carboxylic acid derivative II [R1, R2 = trialkylsilyl, alkyl, diarylsilyl, etc.] (prepared by treating the aldehyde III (preparation also described) with a dibromofluoroacetic acid ester and subsequent 25-O-esterification and then treatment with trialkyltin hydride) with methylmagnesium halides followed by treatment with tetraalkylammonium fluoride. II [R1 = R2 = Me2SiBu] (multi-step preparation given) was treated with MeMgBr and the resulting III was treated with Bu4NF in THF at 70° for 1 h to give 80% I.
IT 150054-30-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for vitamin D3 derivative)
RN 150054-30-1 CAPLUS
CN Chola-5,7-diene-24-carboxylic acid, 1,3-bis[[(1,1-

dimethylethyl)dimethylsilyl]oxy]-24,24-difluoro-23-[(methoxyoxoacetyl)oxy]-, ethyl ester, (1α,3β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

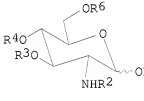


L10 ANSWER 37 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:147981 CAPLUS
DOCUMENT NUMBER: 118:147981
TITLE: Preparation of lipid X analogs as immunostimulants and antitumor agents
INVENTOR(S): Shiosaki, Masao; Ishida, Noboru; Arai, Masami; Kobayashi, Tomoo; Hiraoka, Tetsuo; Nishijima, Masahiro; Akamatsu, Minoru
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04235193	A	19920824	JP 1991-147075	19910619
JP 3040847	B2	20000515		
PRIORITY APPLN. INFO.:			JP 1990-164646 A1	19900622

OTHER SOURCE(S): MARPAT 118:147981
GI



I

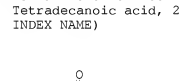
AB The title compds. [I; one of R1, R4 = H, P(O)(OH)2 , OH-protecting group, and the other = P(O)(OH)2; R2, R3 = (un)substituted C6-20 acyl; R6 = H, OH-protecting group; provided that both R2 and R3 ≠ (HO- or C2-20 acyl-substituted) C6-20 acyl], having excellent macrophage-activating activity with little toxicity, are prepared Thus, acylation of allyl 2-deoxy-2-amino-4,6-isopropylidene-β-D-glucopyranoside with (R)-3-benzyloxymyristic acid followed by (±)-syn-2-fluoro-3-

benzyloxycarbonyloxymyristic acid in the presence of DCC in CH2Cl2 gave β-I [R1 = allyl, R2 = (3'R)-3'-benzyloxymyristoylamino, R3 = (2''RS,3''SR)-2''-fluoro-3''-(benzyloxycarbonyloxy)myristoyl, R4R6 = isopropylidene] which was deprotected with 1,5-cyclooctadiene-bis(methyldiphenylphosphine)iridium hexafluorophosphate, H2O, iodine, and pyridine in THF to give I [R1 = OH, R2 = (3'R)-3'-benzyloxymyristoylamino, R3 = (2''RS,3''SR)-2''-fluoro-3''-(benzyloxycarbonyloxy)myristoyl, R4R6 = isopropylidene]. This was acylated with (PhCH2O)2POCl in the presence of BuLi in THF at -78° followed by hydrogenolysis over 10% Pd-C at -78° and simultaneous deacetonation to give I [R1 = P(O)(OH)2, R2 = (3'R)-3'-benzyloxymyristoylamino, R3 = (2''RS,3''SR)-2''-fluoro-3''-(benzyloxycarbonyloxy)myristoyl, R4 = R6 = H]. When I [R1 = R6 = H, R2 = COCH2(OH)C11H23, R3 = COCHF(O2CC13H27)C11H23, R4 = P(O)(OH)2] (sic) was incubated for 18 h with [14C]-arachidonic acid in animal cells [J. Bio. Chemical, volume 262(35) page 17, 212-17, 220], the count of labeled prostaglandin, which was correlated to macrophage activity, was 185/min.

IT 132792-10-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of immunostimulant and antitumor lipid X analog)

RN 132792-10-0 CAPLUS

CN Tetradecanoic acid, 2,2-difluoro-3-[[(phenylmethoxy)carbonyl]oxy]- (CA INDEX NAME)



L10 ANSWER 38 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:102002 CAPLUS

DOCUMENT NUMBER: 118:102002

TITLE: Preparation of dibenz[b,f][1,4]oxazepines and related compounds as analgesics and prostaglandin antagonists

INVENTOR(S): Hallinan, E. Ann; Hagen, Timothy Joseph; Husa, Robert Knol; Tsymbalov, Sofya; Lee, Albert C.; Van Hoeck, Jean Pierre

PATENT ASSIGNEE(S): G.D. Searle and Co., USA

SOURCE: Eur. Pat. Appl., 61 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

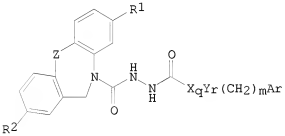
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 512400	A1	19921111	EP 1992-107328	19920429
EP 512400	B1	19981202		
R: PT				
CA 2108903	A1	19921104	CA 1992-2108903	19920416
CA 2108903	C	20040210		
WO 9219617	A2	19921112	WO 1992-US3028	19920416
W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG				
AU 9222462	A	19921221	AU 1992-22462	19920416
EP 583421	A1	19940223	EP 1992-914560	19920416

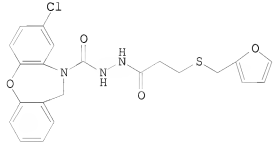
EP 583421		B1	19990616			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE						
JP 06507408		T	19940825	JP 1992-511838		19920416
JP 3222891		B2	20011029			
EP 694545		A2	19960131	EP 1995-116871		19920416
EP 694545		A3	19960327			
EP 694545		B1	20000726			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE						
AT 181329		T	19990715	AT 1992-914560		19920416
ES 2133324		T3	19990916	ES 1992-914560		19920416
AT 194987		T	20000815	AT 1995-116871		19920416
ES 2149305		T3	20001101	ES 1995-116871		19920416
EP 694546		A2	19960131	EP 1995-116872		19920429
EP 694546		A3	19960327			
EP 694546		B1	20010606			
R: PT						
EP 911331		A2	19990428	EP 1999-101029		19920429
EP 911331		A3	20000119			
EP 911331		B1	20031022			
R: PT						
PT 694546		T	20010928	PT 1995-116872		19920429
PT 911331		T	20040331	PT 1999-101029		19920429
US 5378840		A	19950103	US 1993-108551		19930824
US 5464830		A	19951107	US 1994-295302		19940824
US 5576315		A	19961119	US 1995-509846		19950801
GR 3034650		T3	20010131	GR 2000-402337		20001020
PRIORITY APPLN. INFO.:				US 1991-695654	A	19910503
				WO 1992-US3028	A	19920416
				EP 1992-914560	A3	19920416
				EP 1992-107328	A3	19920429
				EP 1995-116872	A3	19920429
				US 1993-108551	A1	19930824
				US 1994-295302	A3	19940824

OTHER SOURCE(S): CASREACT 118:102002; MARPAT 118:102002

GI



I



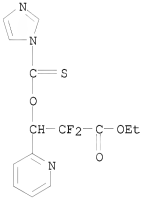
II

AB Title compds. [I; R1 = H, halo, CF3; R2 = H, halo, OH, OMe; Z = O, S, SO, SO2; X = CH:CH, CF2, CHF, (CH2)n, (CH2)pCH:CH; Y = CH(OH), NR3, S, SO, SO2, O; q, r = 0, 1; m = 0-6; n, p = 1-6; R3 = H, Me3CO2C; Ar = (substituted) aryl] were prepared Thus, 3-[(2-furylmethyl)thio]propanoic acid hydrazide (prepn given) and 8-chlorodibenz[b,f][1,4]oxazepine-10(11 H)-carbonyl chloride (preparation given) were condensed in PhMe containing Et3N at reflux to give 100% title compound II. II showed ED50 = 0.9 mg/kg in the phenylbenzoquinone-induced writhing test in mice, and antagonized prostaglandin E2 in guinea pig ileum with pA2 = 8.5.

IT 146033-37-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, intermediate for analgesics and prostaglandin antagonists)

RN 146033-37-6 CAPLUS

CN 2-Pyridinepropanoic acid, α,α-difluoro-β-(1H-imidazol-1-ylthioxomethoxy)-, ethyl ester (CA INDEX NAME)



L10 ANSWER 39 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:38725 CAPLUS

DOCUMENT NUMBER: 118:38725

TITLE: Cyclization reactions of β,β-difluoroalkyl radicals ($CF_2C^{\bullet}$) for synthesizing gem-difluorocyclic compounds

AUTHOR(S): Morikawa, Tsutomu; Kodama, Yoshitoshi; Uchida, Jun; Takano, Masami; Washio, Yoshiaki; Taguchi, Takeo

CORPORATE SOURCE: Tokyo Coll. Pharm., Hachioji, 192-03, Japan

SOURCE: Tetrahedron (1992), 48(41), 8915-26
CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 118:38725

GI

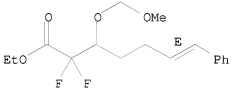
I

AB Cyclization reactions of β,β-difluoroalkyl radicals were carried out. 5- Or 6-Exo selective radical cyclizations of ICH2CF2CH(OR)(CH2)nCH:CHR1 (n = 1, R = MeOCH2, Me3CSiMe2, R1 = cyclohexyl, Ph, BzCH2, PhCH2CH2; n = 2, R = MeOCH2, R1 = Ph, CO2Et, PhCH2OCH2) gave gem-difluorocyclopentanes and -cyclohexanes I resp. in 53-96% yields. 2,5-Disubstituted-3,3-difluorotetrahydropyrans were similarly prepared in 36-82% yields with moderate trans-selectivity (2.0:1-3.1: 1), 4,5-disubstituted-3,3-difluorotetrahydropyrans were obtained via radical deoxygenation in 60-74% yields. High stereoselectivity of radical cyclization for the formation of gem-fluorotetrahydropyran rings was achieved by introducing the bulky tert-butyldiphenylsilyl group onto the acceptor double bond.

IT 145049-23-6P 145049-24-7P 145049-25-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, reduction, and iodination of)

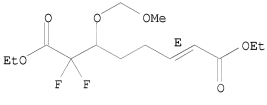
RN 145049-23-6 CAPLUS
CN 6-Heptenoic acid, 2,2-difluoro-3-(methoxymethoxy)-7-phenyl-, ethyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



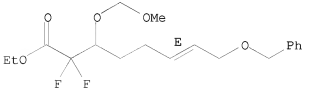
RN 145049-24-7 CAPLUS
CN 2-Octenedioic acid, 7,7-difluoro-6-(methoxymethoxy)-, diethyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



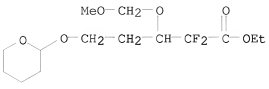
RN 145049-25-8 CAPLUS
CN 6-Octenoic acid, 2,2-difluoro-3-(methoxymethoxy)-8-(phenylmethoxy)-, ethyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

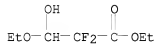


IT 145049-16-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, reduction, benzylation, detetrahydropyranylation, and oxidation of)

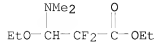
RN 145049-16-7 CAPLUS
CN Pentanoic acid, 2,2-difluoro-3-(methoxymethoxy)-5-[(tetrahydro-2H-pyran-2-yl)oxy]-, ethyl ester (CA INDEX NAME)



L10 ANSWER 40 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:570768 CAPLUS
DOCUMENT NUMBER: 117:170768
TITLE: Lewis acid-promoted reaction of β,β-difluorinated N,O-acetal with silylated nucleophiles
AUTHOR(S): Tsukamoto, Takashi; Kitazume, Tomoya
CORPORATE SOURCE: Dep. Bioeng., Tokyo Inst. Technol., Yokohama, 227, Japan
SOURCE: Chemistry Letters (1992), (7), 1377-80
CODEN: CMLTAG; ISSN: 0366-7022
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 117:170768
AB Lewis acid-promoted reaction of EtO2CCF2CH(OEt)NMe2 (I) with some silylated nucleophiles, e.g., TMSCN, afforded β,β-difluoroamines, e.g., EtO2CCF2CH(CN)NMe2 in good yields. The formation of an iminium ion intermediate from I and BF3.OEt2 was confirmed by 19F and 13C NMR spectroscopy.
IT 141546-97-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 141546-97-6 CAPLUS
CN Propanoic acid, 3-ethoxy-2,2-difluoro-3-hydroxy-, ethyl ester (CA INDEX NAME)



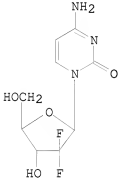
IT 141546-96-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with silylated nucleophiles, Lewis acid-promoted)
RN 141546-96-5 CAPLUS
CN Propanoic acid, 3-(dimethylamino)-3-ethoxy-2,2-difluoro-, ethyl ester (CA INDEX NAME)



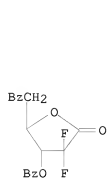
L10 ANSWER 41 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:531482 CAPLUS
DOCUMENT NUMBER: 117:131482
TITLE: Stereospecific synthesis of 2-deoxy-2,2-

	difluororibonolactone and its use in the preparation of 2'-deoxy-2',2'-difluoro-β-D-ribofuranosyl pyrimidine nucleosides: the key role of selective crystallization
AUTHOR(S):	Chou, T. S.; Heath, P. C.; Patterson, L. E.; Poteet, L. M.; Lakin, R. E.; Hunt, A. H.
CORPORATE SOURCE:	Lilly Res. Lab., Eli Lilly and Co., Indianapolis, IN, 46285, USA
SOURCE:	Synthesis (1992), (6), 565-70 CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE:	Journal
LANGUAGE:	English
OTHER SOURCE(S):	CASREACT 117:131482

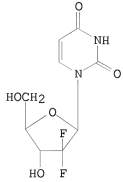
GI



I



II



III

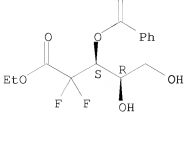
AB A stereospecific synthesis of 2'-deoxy-2',2'-difluorocytidine (gemcitabine) (I), a potential anticancer agent, is described. The stereoselectivity was accomplished via two diastereoselective crystns., i.e. the crystallization of the key intermediate, difluororibonolactone II, and the crystallization of I.HCl from the anomeric mixture Because of the availability of II in large quantities, other 2'-deoxy-2',2'-difluoropyrimidine nucleosides such as 2'-deoxy-2',2'-difluorouridine (III) were synthesized for structure-activity relationship studies.

IT 143234-93-9P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(formation and intramol. cyclocondensation of)

RN 143234-93-9 CAPLUS

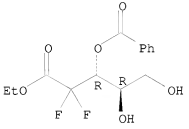
CN D-threo-Pentonic acid, 2-deoxy-2,2-difluoro-, ethyl ester, 3-benzoate (CA INDEX NAME)

Absolute stereochemistry.



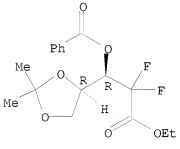
IT 143234-91-7P
RL: PREP (Preparation)
(formation, spectra, and intramol. cyclocondensation of)
RN 143234-91-7 CAPLUS
CN D-erythro-Pentonic acid, 2-deoxy-2,2-difluoro-, ethyl ester, 3-benzoate (CA INDEX NAME)

Absolute stereochemistry.



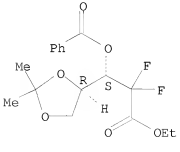
IT 143234-90-6P 143234-92-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and deisopropylidenation of)
RN 143234-90-6 CAPLUS
CN D-erythro-Pentonic acid, 2-deoxy-2,2-difluoro-4,5-O-(1-methylethylidene)-, ethyl ester, 3-benzoate (CA INDEX NAME)

Absolute stereochemistry.



RN 143234-92-8 CAPLUS
CN D-threo-Pentonic acid, 2-deoxy-2,2-difluoro-4,5-O-(1-methylethylidene)-, ethyl ester, benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 42 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:427103 CAPLUS
DOCUMENT NUMBER: 117:27103

TITLE: Synthesis and N- and C-terminal extension of peptidyl α,α-difluoroalkyl ketones

AUTHOR(S): Hong, Wonpyo; Dong, Liwen; Cai, Zhenhong; Titmas, Richard

CORPORATE SOURCE: IGEN, Inc., Rockville, MD, 20852, USA

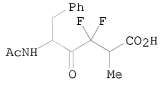
SOURCE: Tetrahedron Letters (1992), 33(6), 741-4
CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

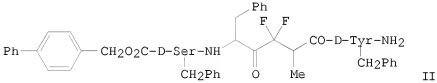
LANGUAGE: English

OTHER SOURCE(S): CASREACT 117:27103

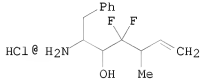
GI



I



II



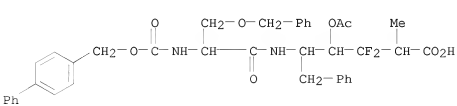
III

AB The synthesis of peptidyl α,α-difluoroalkyl ketones I and II is described. The key intermediate III can be extended at not only the C-terminal but also the N-terminal.

IT 140195-69-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and peptide coupling of, with D-tyrosinamide derivative)

RN 140195-69-3 CAPLUS

CN Benzenehexanoic acid, γ-(acetyloxy)-δ-[[2-[[([1,1'-biphenyl]-4-ylmethoxy)carbonyl]amino]-1-oxo-3-(phenylmethoxy)propyl]amino]-β,β-difluoro-α-methyl- (CA INDEX NAME)



L10 ANSWER 43 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:255148 CAPLUS

DOCUMENT NUMBER: 116:255148

TITLE: Difluorinated malonaldehyde derivatives as useful difluoromethylene-containing building blocks

AUTHOR(S): Tsukamoto, Takashi; Kitazume, Tomoya
CORPORATE SOURCE: Dep. Bioeng., Tokyo Inst. Technol., Yokohama, 227, Japan
SOURCE: Journal of the Chemical Society, Chemical Communications (1992), (7), 540-1
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 116:255148

AB New CF2-containing building blocks, Et 3-ethoxy-2,2-difluoro-3-hydroxypropionate and 3-ethoxy-2,2-difluoro-3-hydroxypropionamide, were prepared by formylation of α,α-difluorinated Reformatskii reagents, and treated with active methylene compds., nitromethane or phosphonoacetate to give α,α-difluoro-functionalized esters and amides.

IT 141546-96-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion of, to hemiacetal)

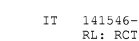
RN 141546-96-5 CAPLUS

CN Propanoic acid, 3-(dimethylamino)-3-ethoxy-2,2-difluoro-, ethyl ester (CA INDEX NAME)

IT 141546-97-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with difluorohydroxy esters)

RN 141546-97-6 CAPLUS

CN Propanoic acid, 3-ethoxy-2,2-difluoro-3-hydroxy-, ethyl ester (CA INDEX NAME)

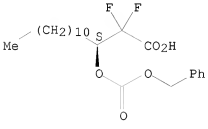


L10 ANSWER 44 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:255139 CAPLUS
DOCUMENT NUMBER: 116:255139
TITLE: Synthesis of (S)- and (R)-3-[(benzyloxycarbonyl)oxy]-2,2-difluorotetradecanoic acid
AUTHOR(S): Shiozaki, Masao; Kobayashi, Yoshiyuki
CORPORATE SOURCE: New Lead Res. Lab., Sankyo Co., Ltd., Tokyo, 140, Japan
SOURCE: Tetrahedron: Asymmetry (1992), 3(3), 451-8
CODEN: TASYE3; ISSN: 0957-4166
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 116:255139

AB Title acids n-C11H23CH(OCO2CH2Ph)CF2CO2H [(S)- and (R)-I] were synthesized from 3,4,6-tri-O-acetyl-D-glucal and Me galactopyranoside via 4,6-di-O-benzyl-2,3-dideoxy-D-erythro(or threo)-hexopyranoside, resp. Treatment of the hexopyranosides with octylidenetriphenylphosphorane followed by Jones oxidation of the alcs., treatment with DAST, catalytic hydrogenation of the double bond, and deprotection of the benzyl group yielded 2,2-difluoro-1,3-dihydroxytetradecane, from which (S)- and (R)-I

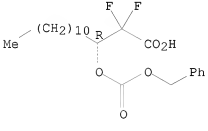
were obtained in four steps.
IT 141507-37-1P 141507-38-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 141507-37-1 CAPLUS
CN Tetradecanoic acid, 2,2-difluoro-3-[[(phenylmethoxy)carbonyl]oxy]-, (S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 141507-38-2 CAPLUS
CN Tetradecanoic acid, 2,2-difluoro-3-[[(phenylmethoxy)carbonyl]oxy]-, (R)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 45 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:214840 CAPLUS
DOCUMENT NUMBER: 116:214840
TITLE: Preparation of lipid A analogs as immunostimulants and antitumor activity
INVENTOR(S): Shiozaki, Masao; Ishida, Noboru; Kobayashi, Tomowo; Hiraoka, Tetsuo; Arai, Masami; Akamatsu, Yuzuru; Nishijima, Masahiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 130 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

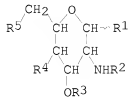
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 437016	A2	19910717	EP 1990-307045	19900627
EP 437016	B1	19960501		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
JP 02256697	A	19901017	JP 1989-321153	19891211
JP 2839921	B2	19981224		
JP 03291292	A	19911220	JP 1990-401087	19901210

JP 2980693 B2 19991122

PRIORITY APPLN. INFO.: JP 1989-321153 A 19891211
JP 1990-37339 A 19900220
JP 1988-329964 A1 19881227

OTHER SOURCE(S): MARPAT 116:214840

GI



I

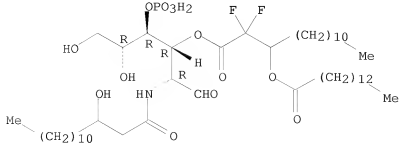
AB The title compds. [I; R1, R5 = (protected) OH, F, OP(O)(OH)2; R2, R3 = (substituted) aliphatic acyl; R4 = (protected) OH, OP(O)(OH)2; with provisos] were prepared Allyl 2-deoxy-2-amino-4,6-O-isopropylidene-β-D-glucopyranoside (preparation given) was condensed with (R)-3-benzyloxytetradecanoic acid in CH2Cl2 containing DCC to give allyl 2-deoxy-2-[(3R)-3'-benzyloxytetradecanoylamino]-4,6-O-isopropylidene-β-D-glucopyranoside, which was further condensed with (+)-syn-2-fluoro-3-benzyloxycarbonyloxytetradecanoic acid to give allyl 2-deoxy-2-[(3R')-3'-benzyloxytetradecanoylamino]-3-O-[(2''RS,3''SR)-2''-fluoro-3''-(benzyloxycarbonyloxy)tetradecanoyl]-4,6-O-isopropylidene-β-D-glucopyranoside, which in THF was treated with 1,5-cyclohexadienebis[methyldiphenylphosphine]iridium hexafluorophosphate to give 2-deoxy-2-[(3R)-3'-benzyloxytetradecanoylamino]-3-O-[(2''RS,3''SR)-2''-fluoro-3''-(benzyloxycarbonyloxy)tetradecanoyl]-4,6-O-isopropylidene-D-glucopyranose. This was phosphorylated with dibenzyl phosphorochloridate in THF-hexane containing BuLi to give, after hydrogenolysis over Pd/C, 2-deoxy-2-[(3R)-3'-hydroxytetradecanoylamino]-3-O-[(2''RS,3''SR)-2''-fluoro-3''-hydroxytetradecanoyl]-α-D-glucopyranose 1-phosphate. In an in vitro experiment comparing the ability of I to effect release of [14C]-prostaglandin D2 using a macrophage-like mouse cell line J774.1, 2-deoxy-2-[(2'S,3'R)-2'-fluoro-3'-hydroxytetradecanoylamino]-3-O-[(3''R)-tetradecanoyloxy)tetradecanoyl-4,6-O-isopropylidene-α-D-glucopyranose 4-phosphate (prepared similarly) was 18% more active than the known GLA-60.

IT 138527-44-3P 138527-45-4P 138527-46-5P
138551-05-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as immunostimulant and antitumor)

RN 138527-44-3 CAPLUS

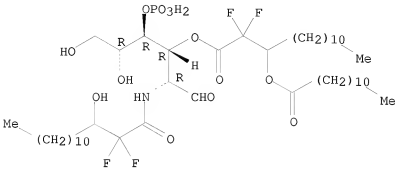
CN D-Glucose, 2-deoxy-2-[(3-hydroxy-1-oxotetradecyl)amino]-, 3-[2,2-difluoro-3-[(1-oxotetradecyl)oxy]tetradecanoate] 4-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



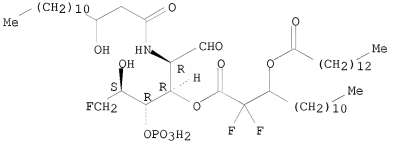
RN 138527-45-4 CAPLUS
CN D-Glucose, 2-deoxy-2-[(2,2-difluoro-3-hydroxy-1-oxotetradecyl)amino]-, 3-[2,2-difluoro-3-[(1-oxododecyl)oxy]tetradecanoate] 4-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



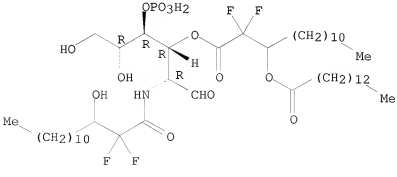
RN 138527-46-5 CAPLUS
CN D-Glucose, 2,6-dideoxy-6-fluoro-2-[(3-hydroxy-1-oxotetradecyl)amino]-, 3-[2,2-difluoro-3-[(1-oxotetradecyl)oxy]tetradecanoate] 4-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



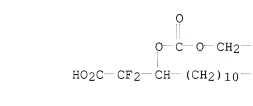
RN 138551-05-0 CAPLUS
CN D-Glucose, 2-deoxy-2-[(2,2-difluoro-3-hydroxy-1-oxotetradecyl)amino]-, 4-(dihydrogen phosphate) 3-[2,2-difluoro-3-[(1-oxotetradecyl)oxy]tetradecanoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 132792-10-0
RL: RCT (Reactant); RACT (Reactant or reagent)

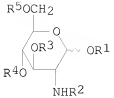
(reaction of, in preparation of lipid A analogs)
RN 132792-10-0 CAPLUS
CN Tetradecanoic acid, 2,2-difluoro-3-[[(phenylmethoxy)carbonyl]oxy]- (CA INDEX NAME)



L10 ANSWER 46 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:59901 CAPLUS
DOCUMENT NUMBER: 116:59901
TITLE: Preparation of lipid A monosaccharide analogs as immunostimulants and antitumor agents.
INVENTOR(S): Shiosaki, Masao; Ishida, Noboru; Kobayashi, Tomoo; Hiraoka, Tetsuo; Akamatsu, Minoru; Nishijima, Masahiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02256697	A	19901017	JP 1989-321153	19891211
JP 2839921	B2	19981224		
DD 295854	A5	19911114	DD 1990-342041	19900625
SU 1836378	A3	19930823	SU 1990-4830600	19900625
CN 1052481	A	19910626	CN 1990-106805	19900626
CN 1029405	B	19950802		
HU 55793	A2	19910628	HU 1990-3991	19900626
HU 217114	B	19991129		
CZ 285583	B6	19990915	CZ 1990-3185	19900626
CA 2019972	A1	19910611	CA 1990-2019972	19900627
CA 2019972	C	20000808		
EP 437016	A2	19910717	EP 1990-307045	19900627
EP 437016	B1	19960501		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
AT 137504	T	19960515	AT 1990-307045	19900627
ES 2088970	T3	19961001	ES 1990-307045	19900627
KR 187302	B1	19990401	KR 1990-9570	19900627
RU 2076107	C1	19970327	RU 1992-5052656	19920909
US 5792840	A	19980811	US 1994-280298	19940726
KR 183315	B1	19990401	KR 1998-37538	19980911
PRIORITY APPLN. INFO.:			JP 1988-329964	A1 19881227
			JP 1989-321153	A 19891211
			JP 1990-37339	A 19900220
			US 1990-539605	B1 19900618
			KR 1990-9570	A 19900627

OTHER SOURCE(S): MARPAT 116:59901
GI



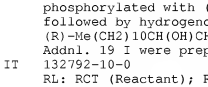
I

AB The title compds. [I; one of R1,R4 = H, P(O)(OH)2, protecting group; the other = P(O)(OH)2; one of R2,R3 = (halo-, HO-, or C6-20 aliphatic acyloxy-substituted) C6-20 aliphatic acyl and the other = halo-, HO-, or C6-20 aliphatic acyloxy-substituted C6-20 aliphatic acyl, (halo-, HO-, or C6-20 aliphatic acyloxy-substituted) C6-20 alkyl], possessing macrophage-activating activity (no data), are prepared Thus, amidation of I (R1 = allyl, R2 = R3 = H, R4R5 = CMe2) (preparation given) with (R)-3-benzyloxymyristic acid in CH2Cl2 containing DCC followed by esterification with (±)-syn-2-fluoro-3-benzyloxycarboxyloxymyristic acid in CH2Cl2 containing DCC and 4-dimethylaminopyridine gave I [R1 = allyl, R2 = (R)-Me(CH2)10CH(OCH2Ph)CH2CO, R3 = (±)-Me(CH2)10CH(OCO2CH2Ph)CHFCO, R4R5 = CMe2]. The latter was treated with 1,5-cyclooctadiene-bis[methyldiphenylphosphine]iridium hexafluorophosphate and then H2, iodine, and pyridine to give I (R1 = H; R2-R5 = same as above) which was phosphorylated with (PhCH2O)2P(O)Cl in THF in the presence of BuLi followed by hydrogenolysis over 10% Pd/C to give I [R1 = P(O)(OH)2, R2 = (R)-Me(CH2)10CH(OH)CH2CO, R3 = (±)-Me(CH2)10CH(OH)CHFCO, R4 = R5 = H]. Addnl. 19 I were prepared

IT 132792-10-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of, antitumor and immunostimulant glucosamine lipid A analog)

RN 132792-10-0 CAPLUS

CN Tetradecanoic acid, 2,2-difluoro-3-[[(phenylmethoxy)carbonyl]oxy]- (CA INDEX NAME)



L10 ANSWER 47 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:679387 CAPLUS

DOCUMENT NUMBER: 115:279387

TITLE: Enantioselective synthesis of β,β-difluoromalic acid via enzymic resolution of furyl-substituted derivative

AUTHOR(S): Tsukamoto, Takashi; Yoshiyama, Tomonori; Kitazume, Tomoya

CORPORATE SOURCE: Dep. Bioeng., Tokyo Inst. Technol., Yokohama, 227, Japan

SOURCE: Tetrahedron: Asymmetry (1991), 2(8), 759-62
CODEN: TASYE3; ISSN: 0957-4166

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 115:279387

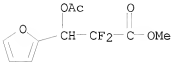
AB (R)- And (S)-N,N-Diethyl-2,2-difluoro-3-(2-furyl)-3-hydroxypropionamide (I) have been obtained via enzymic resolution of the racemic acetate using lipase MY from Candida cylindracea. Ozonolysis of I followed by

hydrolysis afforded the (S)-β,β-difluoromalic acid.

IT 137524-41-5P 137524-42-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

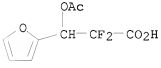
RN 137524-41-5 CAPLUS

CN 2-Furanpropanoic acid, β-(acetyloxy)-α,α-difluoro-, methyl ester (CA INDEX NAME)



RN 137524-42-6 CAPLUS

CN 2-Furanpropanoic acid, β-(acetyloxy)-α,α-difluoro- (CA INDEX NAME)



L10 ANSWER 48 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:514932 CAPLUS

DOCUMENT NUMBER: 115:114932

TITLE: Synthesis of 2-deoxy-2-[(2,2-difluoro-3-hydroxytetradecanoyl)amino]-3-O-[(R)-3-(tetradecanoyloxy)tetradecanoyl]-D-glucopyranose 4-phosphate

AUTHOR(S): Shiozaki, Masao; Kobayashi, Yoshiyuki; Arai, Masami; Watanabe, Takashi; Hiraoka, Tetsuo; Nishijima, Masahiro; Kuge, Sayuri; Otsuka, Toshiaki; Akamatsu, Yuzuru

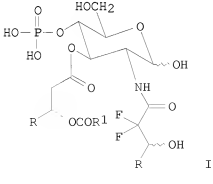
CORPORATE SOURCE: New Lead Res. Lab., Sankyo Co., Ltd., Tokyo, 140, Japan

SOURCE: Journal of Medicinal Chemistry (1991), 34(8), 2643-6
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



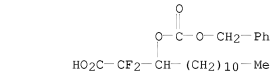
I

AB Title compds. I (R = n-C11H23, R1 = n-C13H27) were synthesized from allyl 2-amino-2-deoxy-4,6-O-isopropylidene-β-D-glucopyranoside, (±)-3-[(benzyloxycarbonyl)oxy]-2,2-difluorotetradecanoic acid, and (R)-3-(tetradecanoyloxy)teradecanoic acid. Compds. I were more active than GLA-60 for the prostaglandin D2 releasing test on macrophages.

IT 132792-10-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and coupling of, with aminodeoxyglucopyranoside)

RN 132792-10-0 CAPLUS

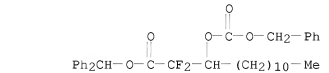
CN Tetradecanoic acid, 2,2-difluoro-3-[[(phenylmethoxy)carbonyl]oxy]- (CA INDEX NAME)



IT 135226-03-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deesterification of)

RN 135226-03-8 CAPLUS

CN Tetradecanoic acid, 2,2-difluoro-3-[[(phenylmethoxy)carbonyl]oxy]-, diphenylmethyl ester (CA INDEX NAME)



L10 ANSWER 49 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:64555 CAPLUS

DOCUMENT NUMBER: 114:64555

TITLE: Preparation of fluorine-containing cellulose derivatives and their properties

AUTHOR(S): Muramoto, Mieko; Yoshioka, Mariko; Shiraishi, Nobuo

CORPORATE SOURCE: Fac. Agric., Kyoto Univ., Kyoto, 606, Japan

SOURCE: Sen'i Gakkaishi (1990), 46(11), 496-505
CODEN: SENGA5; ISSN: 0037-9875

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cellulose dissolved in a mixture of LiCl and AcNMe2 was esterified with 4-perfluoro(3-isopropyl-4-methyl-2-penten-2-yloxy)phthalic anhydride (I) using Et3N or pyridine as a catalyst. The products obtained with either catalyst had the same degree of substitution (DS) of 2.1. Fluorine-containing cellulose derivs. with DS of 0.16 and 0.36 were also prepared by esterifications of Et cellulose (II) (DS = 2.5) with I and with 1,1,2,2,3-pentafluoropropoxy-2,2-difluoropropionyl fluoride (III), resp. Formation of these esters was confirmed by IR and 1H- and 19F-NMR spectra. Dynamic viscoelastic and thermoplastic characteristics of cellulose and II were changed considerably by their derivatization. Refractive indexes of the fluorine-containing cellulose derivs. were relatively low, 1.443-1.458. All the products were less hygroscopic than the starting materials. II, I-esterified II, and III-esterified II had low dielec. consts. and low

dielec. loss tangents, so they could be regarded as good insulators.

IT 131552-78-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of, degree of substitution effects in)

RN 131552-78-8 CAPLUS

CN Cellulose, 2,2-difluoro-3-(1,1,2,2,3-pentafluoropropoxy)propanoate, ethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 168677-68-7
CMF C6 H5 F7 O3

CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 64-17-5
CMF C2 H6 O

L10 ANSWER 50 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:45285 CAPLUS
DOCUMENT NUMBER: 114:45285
TITLE: Preparation of fluorine-containing cellulose derivatives
INVENTOR(S): Shiraishi, Nobuo; Kubo, Motonobu
PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 382208	A2	19900816	EP 1990-102483	19900208
EP 382208	A3	19910522		
R: DE, FR, GB				
JP 02212501	A	19900823	JP 1989-31845	19890210
JP 02227401	A	19900910	JP 1989-47098	19890228
US 5187269	A	19930216	US 1990-476697	19900208
PRIORITY APPLN. INFO.:			JP 1989-31845 A	19890210
			JP 1989-47098 A	19890228

AB The title derivs. with high F content, having good water resistance, etc., are prepared by the reaction of cellulose with compds. such as 4-[2,2-bis(perfluoroisopropyl)-1-trifluoromethyl)ethenyloxy]phthalic

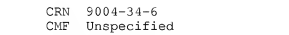
anhydride (I), 4-[2,2-bis(perfluoroisopropyl)-1-(trifluoromethyl)ethenyloxy]benzoyl chloride, FCH2CF2CF2OCH2CF2COF, or FCOCF2CH2(OCF2CF2CH2)qF in the presence of an esterification catalyst. A solution of cellulose in AcNMe2 containing LiCl and Et3N was treated with I (6 mol/mol cellulose units) to give a cellulose ester having degree of substitution 2.1 and F content 47.8%.

IT 131552-77-7P 131571-36-3P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of, with high fluorine content and water repellency)

RN 131552-77-7 CAPLUS
CN Cellulose, 2,2-difluoro-3-(1,1,2,2,3-pentafluoropropoxy)propanoate (9CI) (CA INDEX NAME)

CM 1

CRN 168677-68-7
CMF C6 H5 F7 O3



CM 2

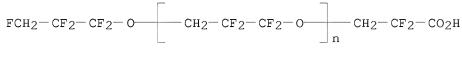
CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 131571-36-3 CAPLUS
CN Cellulose, ester with α-(2-carboxy-2,2-difluoroethyl)-ω-fluoropoly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 104677-65-8
CMF (C3 H2 F4 O)n C6 H5 F7 O3
CCI PMS



CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

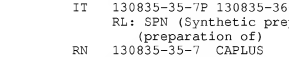
L10 ANSWER 51 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:7136 CAPLUS
DOCUMENT NUMBER: 114:7136
TITLE: Michael addition of 2,2-difluoroketene silyl acetal. Preparation of 4,4-difluoroglutamic acid and 5,5-difluorolysine
AUTHOR(S): Kitagawa, Osamu; Hashimoto, Akihiro; Kobayashi,

Yoshiro; Taguchi, Takeo
CORPORATE SOURCE: Tokyo Coll. Pharm., Hachioji, 192-03, Japan
SOURCE: Chemistry Letters (1990), (8), 1307-10
CODEN: CMLTAG; ISSN: 0366-7022
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:7136

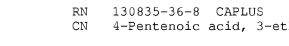
AB 2,2-Difluoroketene silyl acetals F2C:C(OMe)OSiR3 (R = Me, Et), generated in situ by treating ICF2CO2Me with Zn followed by R3SiCl, readily reacted with α,β-unsatd. carbonyl compds. or acetals to give the 1,4-addition products, preferentially. The difluoro analogs of glutamic acid and lysine were prepared through the present reaction.

IT 130835-35-7P 130835-36-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 130835-35-7 CAPLUS
CN 4-Pentenoic acid, 3-ethoxy-2,2-difluoro-5-phenyl-, methyl ester (CA INDEX NAME)



RN 130835-36-8 CAPLUS
CN 4-Pentenoic acid, 3-ethoxy-2,2-difluoro-, methyl ester (CA INDEX NAME)



L10 ANSWER 52 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:6504 CAPLUS
DOCUMENT NUMBER: 114:6504
TITLE: Preparation of 3-(2-nitroimidazolo)-2,2-difluoropropionamides and analogs as radiosensitizers
INVENTOR(S): Kagiya, Tsutomu; Abe, Mitsuyuki; Nishimoto, Seiichi; Shibamoto, Yuta; Otomo, Susumu; Tanami, Tohru; Shimokawa, Kazuhiro; Yoshizawa, Toru; Hisanaga, Yorisato
PATENT ASSIGNEE(S): Nishijima, Yasunori, Japan; Taisho Pharmaceutical Co., Ltd.; Daikin Industries, Ltd.
SOURCE: Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 373630	A1	19900620	EP 1989-123062	19891213
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
CA 2005261	A1	19900614	CA 1989-2005261	19891212
US 4977273	A	19901211	US 1989-448909	19891212
AU 8946713	A	19900621	AU 1989-46713	19891213
AU 625581	B2	19920716		
ZA 8909503	A	19900926	ZA 1989-9503	19891213
JP 02275863	A	19901109	JP 1989-325437	19891214

PRIORITY APPLN. INFO.: JP 1988-315974 A 19881214
OTHER SOURCE(S): CASREACT 114:6504; MARPAT 114:6504
GI

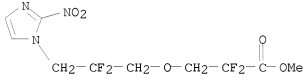
I

AB The title compds. [I; R = CH2CFXCH2OR1; R1 = CH2CH(OR2)CH2OR2, (CH2)lOR2, (CH2)lCOR2, (CH2)m(CF2)n[CONH(CHR3)r(CF2)p]qZ, etc.; R2 = H, OH (sic), alkyl, acyl; R22 = PhCH, Me2C; R3 = H, alkyl; X = H, halo; Z = H, CO2R3, CO2H, CONH2, etc.; l = 1-3; m, n = 0-4; p = 0-2; q, r = 0-3] were prepared as hypoxic cell sensitizers. Thus, I (R = CH2CF2CO2Me) was stirred 1 h with H2NCH2CH2CO2Me.HCl in MeOH containing KOH and the product stirred 2 days with aqueous NH3-MeOH containing KOH to give I (R = CH2CF2CONHCH2CH2CONH2) which gave cell-survival rate of EMT-6 tumor cells X-irradiated in mouse thigh 66% that of unirradiated cells after administration of 100 mg/kg i.p.

IT 130777-27-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of radiosensitizers)

RN 130777-27-4 CAPLUS

CN Propanoic acid, 3-[2,2-difluoro-3-(2-nitro-1H-imidazol-1-yl)propoxy]-2,2-difluoro-, methyl ester (CA INDEX NAME)



L10 ANSWER 53 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:547802 CAPLUS
DOCUMENT NUMBER: 113:147802
TITLE: Structure-activity studies of fluoroketone inhibitors of α-lytic protease and human leukocyte elastase
AUTHOR(S): Govardhan, Chandrika P.; Abeles, Robert H.
CORPORATE SOURCE: Grad. Dep. Biochem., Brandeis Univ., Waltham, MA, 02254, USA
SOURCE: Archives of Biochemistry and Biophysics (1990), 280(1), 137-46
CODEN: ABBIA4; ISSN: 0003-9861
DOCUMENT TYPE: Journal
LANGUAGE: English

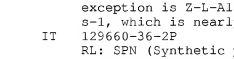
AB A series of peptidyl fluoroketones that reversibly inhibit the serine proteases human leukocyte elastase (HLE) and α-lytic protease (α-LP) were synthesized. Ac-ambo-AlaCF3 inhibits HLE and α-LP with Kis of 2.4 and 15 mM, resp. The effects of structural variations on this parent compound on Ki and the kinetics of inhibition were studied. The acetyl group was replaced by the tripeptide Z-L-Ala-L-Ala-L-Pro to yield the tetrapeptide trifluoroketone (TFK) Z-L-Ala-L-Ala-L-Pro-ambo-AlaCF3 (I). This extension reduced Ki 3500-fold for HLE and 3000-fold for α-LP. Removal of a F atom from a TFK decreases Ki .apprx.15-30-fold with both enzymes. Replacement of one atom of I by a residue

(-CH2-CH2-COLeuOMe) (II) which can interact with the S'1 and S'2 subsites decreased Ki 30-fold for HLE and 150-fold for α-LP compared to Z-L-Ala-L-Ala-L-Pro-ambo-AlaCF2H. The Ki of II for HLE is approx. equal to that of trifluoroketone I. For α-LP Ki of II is 10-fold lower than that for the trifluoroketone I. Inhibitors with Ki values <10-7M exhibit slow binding kinetics. By analogy to cholinesterases and chymotrypsin, it is likely that these enzymes combine with the keto form of the inhibitor to form the enzyme-inhibitor complex. Therefore, Kon and Ki were corrected for the ketone concentration The corrected kon values for the slow binding inhibitors are in most cases less than diffusion controlled, ranging between 8.2 + 104 and 4.68 + 106 M-1 s0-1. An exception is Z-L-Ala-L-Ala-L-Pro-ambo-ValCF3 where kon = 9 + 107 M-1 s-1, which is nearly diffusion controlled.

IT 129660-36-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conversion to nitro alc.)

RN 129660-36-2 CAPLUS

CN Pentanoic acid, 4,4-difluoro-5-hydroxy-5-methoxy-, methyl ester (CA INDEX NAME)

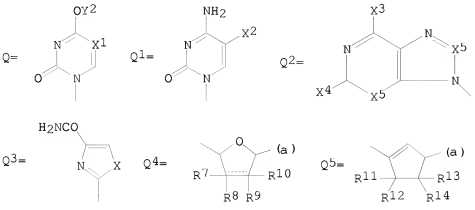


L10 ANSWER 54 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:119358 CAPLUS
DOCUMENT NUMBER: 112:119358
TITLE: Preparation of cyclic or acyclic nucleoside (fluoroalkyl)phosphonates as antiviral and antitumor agents
INVENTOR(S): Casara, Patrick; Jund, Karin
PATENT ASSIGNEE(S): Merrell Dow Pharmaceuticals, Inc., USA
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 339161	A1	19891102	EP 1988-400806	19880401
R: FR				
EP 335770	A2	19891004	EP 1989-400773	19890320
EP 335770	A3	19901227		
EP 335770	B1	19970115		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 147746	T	19970215	AT 1989-400773	19890320
FI 8901462	A	19891002	FI 1989-1462	19890328
ZA 8902284	A	19900228	ZA 1989-2284	19890328
DK 8901573	A	19891002	DK 1989-1573	19890331
NO 8901381	A	19891002	NO 1989-1381	19890331
HU 49627	A2	19891030	HU 1989-1608	19890331
HU 204535	B	19920128		
JP 02072192	A	19900312	JP 1989-78743	19890331
CN 1036578	A	19891025	CN 1989-101905	19890401
AU 8932410	A	19891005	AU 1989-32410	19890403
AU 614128	B2	19910822		
AU 9178366	A	19910912	AU 1991-78366	19910614

AU 631319 B2 19921119
PRIORITY APPLN. INFO.: EP 1988-400806 A 19880401
EP 1989-400773 A 19890320
OTHER SOURCE(S): CASREACT 112:119358; MARPAT 112:119358
GI

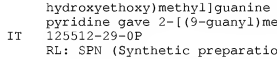


AB The title fluorinated nucleotides HOP(O)(CH2F3-n)OCHRZB [I; n = 0, 1, 2; B = Q-Q3, 5-carbamoyl-1,2,4-triazol-1-yl; X = S, Se; X1 = N, CY1; Y1 = H, Me, Et, iodo, F, Cl, Br, NH2, SH, CH:CH2, C.tplbond.CH, etc.; X2 = H, F, Me, CH:CHBr; X3 = H, OH, CL, NH2, SMe, SH; X4 = H, NH2, F, Br, Cl, iodo; X5 = N, CH; Y2 = H, Et; Z = CH2CHR1CH2O-(a), CHR1OCHR2-(a), CHR3CHR4CH2-(a), CHR5OCH2-(a), Q4, Q5, etc., where the (a)-terminus is bonded to B; R1 = H, CH2OH, CH(OH)CH2OH, Me, CH2NH2, CH2CH2OH, CHO; R2 = H, CH2OH, CH2CH2OH, CHO; R3 = H, OH, CH2OH; R4 = H, OH; R5 = CF2CH2OH; R6 = CHF2, CF3, CF2CH2OH; R7, R9 = H, OH, F, N3, NH2, Cl; R8, R10 = H, F, Cl; R11, R13 = H, OH; R12, R14 = H], useful as antiviral and antitumor agents (no data) are prepared Thus, condensation of 9-[(2-hydroxyethoxy)methyl]guanine with CF2HF(O)(OH)2 in the presence of DCC in pyridine gave 2-[(9-guanyl)methoxy]ethyl difluoromethylphosphonate.

IT 125512-29-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for acyclic nucleoside (fluoroalkyl)phosphonates)

RN 125512-29-0 CAPLUS

CN Propanoic acid, 2,2-difluoro-3-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



L10 ANSWER 55 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:119356 CAPLUS
DOCUMENT NUMBER: 112:119356
TITLE: Preparation of (acyclo)nucleoside (fluoroalkyl)phosphonates as antivirals and antitumors
INVENTOR(S): Casara, Patrick; Jund, Karin
PATENT ASSIGNEE(S): Merrell Dow Pharmaceuticals, Inc., USA
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 335770	A2	19891004	EP 1989-400773	19890320
EP 335770	A3	19901227		
EP 335770	B1	19970115		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
EP 339161	A1	19891102	EP 1988-400806	19880401
R: FR				
FI 8901462	A	19891002	FI 1989-1462	19890328
DK 8901573	A	19891002	DK 1989-1573	19890331
NO 8901381	A	19891002	NO 1989-1381	19890331
HU 49627	A2	19891030	HU 1989-1608	19890331
HU 204535	B	19920128		
JP 02072192	A	19900312	JP 1989-78743	19890331
CN 1036578	A	19891025	CN 1989-101905	19890401
AU 8932410	A	19891005	AU 1989-32410	19890403
AU 614128	B2	19910822		
AU 9178366	A	19910912	AU 1991-78366	19910614
AU 631319	B2	19921119		

PRIORITY APPLN. INFO.: EP 1988-400806 A 19880401
EP 1989-400773 A 19890320

OTHER SOURCE(S): MARPAT 112:119356

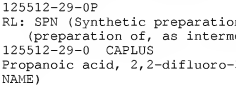
GI For diagram(s), see printed CA Issue.

AB The title compound [HOP(O)(CHnF3-n)OCHTXB; I; II; B = (substituted) nucleoside base, e.g., uracil, thymine, cytosine, 5-halouracil, 5-carboxyuracil; n = 0, 1,2; T = H, OH; X = (substituted) (oxa)trimethylene, (substituted) propadienylene, (substituted) ethylene, Q or its derivative, Q1 or its derivative; R15-R19 = H, nucleoside base, etc.], useful as antivirals and antitumor agents (no data), are prepared 9-[(2-Hydroxyethoxy)methyl]guanine was condensed with (difluoromethyl)phosphonic acid in pyridine containing DCC to give 2-(9-guaninylmethoxy)ethyl (difluoromethyl)phosphonate.

IT 125512-29-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for antivirals and antitumors)

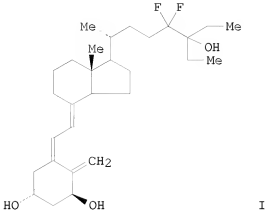
RN 125512-29-0 CAPLUS

CN Propanoic acid, 2,2-difluoro-3-(phenylmethoxy)-, ethyl ester (CA INDEX NAME)



L10 ANSWER 56 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:56418 CAPLUS
DOCUMENT NUMBER: 112:56418
TITLE: Synthesis and biological activity of novel vitamin D analogs: 24,24-difluoro-25-hydroxy-26,27-dimethylvitamin D3 and 24,24-difluoro-1α,25-dihydroxy-26,27-dimethylvitamin D3
AUTHOR(S): Gill, Harpal S.; Londowski, James M.; Corradino, Robert A.; Zinsmeister, Alan R.; Kumar, Rajiv
CORPORATE SOURCE: Eagle-Picher Ind., Inc., Lenexa, KS, 66215, USA
SOURCE: Journal of Medicinal Chemistry (1990), 33(2), 480-90
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 112:56418
GI



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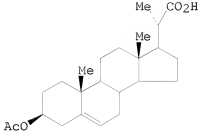


II

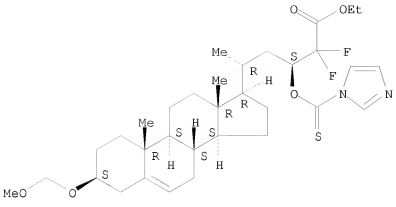
AB The title vitamin D3 derivs. I (R = H, OH) were prepared from 22,23-dinorcholenic acid II in several steps. I are highly potent vitamin D analogs with bioactivity in vivo similar to that of 25-hydroxyvitamin D3.

IT 123836-02-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cleavage of, with tributyltin hydride)

RN 123836-02-2 CAPLUS

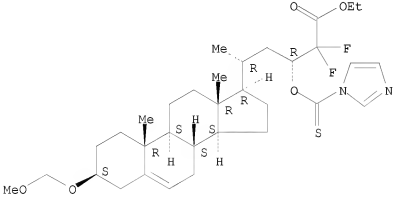
CN Chol-5-ene-24-carboxylic acid, 24,24-difluoro-23-(1H-imidazol-1-ylthioxomethoxy)-3-(methoxymethoxy)-, ethyl ester, (3β,23S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 123836-01-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of, with tributyltin hydride)
RN 123836-01-1 CAPLUS
CN Chol-5-ene-24-carboxylic acid, 24,24-difluoro-23-(1H-imidazol-1-ylthioxomethoxy)-3-(methoxymethoxy)-, ethyl ester, (3β,23R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 57 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:534693 CAPLUS
DOCUMENT NUMBER: 111:134693
TITLE: Preparation of 2',2'-difluoro nucleosides
INVENTOR(S): Chou, Ta Sen; Heath, Perry Clark; Patterson, Lawrence Edward
PATENT ASSIGNEE(S): Eli Lilly and Co., USA
SOURCE: Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 306190	A2	19890308	EP 1988-307750	19880822
EP 306190	A3	19911121		
EP 306190	B1	19980408		

R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE

IL	87517	A	19930513	IL 1988-87517	19880822
CA	1324128	C	19931109	CA 1988-575329	19880822
EP	630905	A1	19941228	EP 1994-202041	19880822
EP	630905	B1	19990506		

R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE

IL	102144	A	19950629	IL 1988-102144	19880822
EP	688782	A1	19951227	EP 1995-201845	19880822
EP	688782	B1	20020502		

R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE

EP	688783	A1	19951227	EP 1995-201846	19880822
EP	688783	B1	20010613		

R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE

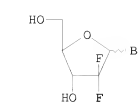
AT	164847	T	19980415	AT 1988-307750	19880822
ES	2113845	T3	19980516	ES 1988-307750	19880822
AT	179713	T	19990515	AT 1994-202041	19880822
ES	2131152	T3	19990716	ES 1994-202041	19880822
ES	2157289	T3	20010816	ES 1995-201846	19880822
AT	217009	T	20020515	AT 1995-201845	19880822
ES	2176279	T3	20021201	ES 1995-201845	19880822
JP	01071894	A	19890316	JP 1988-213482	19880826
JP	2738540	B2	19980408		
HU	47590	A2	19890328	HU 1988-4471	19880826
HU	202249	B	19910228		
HU	206886	B	19930128	HU 1990-6268	19880826
HU	62909	A2	19930628	HU 1992-1768	19880826
HU	213199	B	19970328		
JP	10072457	A	19980317	JP 1997-227946	19880826
JP	10072484	A	19980317	JP 1997-227948	19880826
KR	9702659	B1	19970307	KR 1988-10908	19880827
US	4965374	A	19901023	US 1989-445139	19891204
US	5223608	A	19930629	US 1990-551972	19900712
US	5434254	A	19950718	US 1993-49220	19930419
CA	1330988	C	19940726	CA 1993-616612	19930422
CA	1330989	C	19940726	CA 1993-616614	19930422
CA	1331008	C	19940726	CA 1993-616615	19930422
CA	1331194	C	19940802	CA 1993-616613	19930422
US	5945547	A	19990831	US 1997-820821	19970319
JP	10072483	A	19980317	JP 1997-227952	19970825
JP	2899576	B2	19990602		
JP	10081696	A	19980331	JP 1997-227954	19970825
JP	2899577	B2	19990602		
GR	3036500	T3	20011130	GR 2001-401360	20010831

PRIORITY APPLN. INFO.:

US 1987-90725	A	19870828
CA 1988-575329	A3	19880822
EP 1988-307750	A3	19880822
IL 1988-87517	A3	19880822
US 1988-236058	B3	19880824
HU 1988-4471	A3	19880826
JP 1988-213482	A3	19880826
US 1989-445139	A3	19891204
US 1990-551972	A3	19900712
US 1993-49220	A3	19930419
US 1995-431595	B1	19950501

OTHER SOURCE(S): CASREACT 111:134693; MARPAT 111:134693

GI



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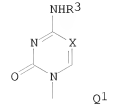
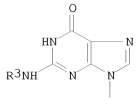
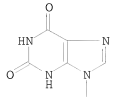


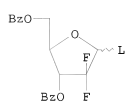
Q1



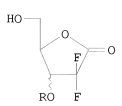
Q2



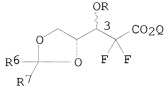
Q3



II



III



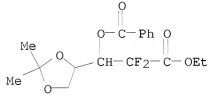
IV

AB Ca. 1:1 anomeric mixts. of the title nucleosides I [B = nucleoside base, e.g., Q1,Q2,Q3; X = N, CR4; R3 = H, C1-4 alkyl, COR5; R4 = H, C1-4 alkyl, amino, Br, Cl, iodo; R5 = H, C1-4 alkyl], useful as antiviral agents (no data), are prepared via reaction of protected difluorosugars II (L = leaving group) with an appropriate base B-H. Also, sugar derivs. III (R = H, Bz) are prepared by hydrolyzing propionates IV (Q = C1-4 alkyl; R6, R7 = alkyl) with a strong acid followed by azeotropic distillation of H2O. 3,5-Di-O benzoyl-2-deoxy-2,2-difluoro-D-erythro-pentofuranose in ClCH2CH2Cl containing CF3SO3SiMe3 was refluxed with bis(trimethylsilyl)-N-acetylcytosine for about 8 h to give, after deprotection, a 1:1 α/β anomeric mixture of 2'-deoxy-2',2'-difluorocytidine.

IT 122111-09-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(deacetonation and lactonization of)

RN 122111-09-5 CAPLUS

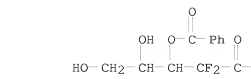
CN Pentonic acid, 2-deoxy-2,2-difluoro-4,5-O-(1-methylethylidene)-, ethyl ester, benzoate (9CI) (CA INDEX NAME)



IT 122111-10-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 122111-10-8 CAPLUS

CN Pentonic acid, 2-deoxy-2,2-difluoro-, ethyl ester, 3-benzoate (9CI) (CA INDEX NAME)



L10 ANSWER 58 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1987:85059 CAPLUS
DOCUMENT NUMBER: 106:85059
TITLE: Amino acid and peptide derivatives as peptidase inhibitors
PATENT ASSIGNEE(S): Merrell Dow Pharmaceuticals, Inc., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61183253	A	19860815	JP 1986-21371	19860204
JP 2529825	B2	19960904		
AU 8652881	A	19860807	AU 1986-52881	19860131
AU 600226	B2	19900809		
ZA 8600746	A	19860924	ZA 1986-746	19860131
IL 77748	A	19911121	IL 1986-77748	19860131
CA 1341029	C	20000620	CA 1986-500832	19860131
DK 8600515	A	19860805	DK 1986-515	19860203
FI 8600484	A	19860805	FI 1986-484	19860203
FI 94254	B	19950428		
FI 94254	C	19950810		
NO 8600371	A	19860805	NO 1986-371	19860203
NO 169543	B	19920330		
NO 169543	C	19920708		
HU 40142	A2	19861128	HU 1986-467	19860203
HU 207102	B	19930301		
CN 86101268	A	19870204	CN 1986-101268	19860203
ES 551597	A1	19871116	ES 1986-551597	19860203
EP 195212	A2	19860924	EP 1986-101437	19860204
EP 195212	A3	19881005		
EP 195212	B1	19931124		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 97652	T	19931215	AT 1986-101437	19860204
ES 553504	A1	19871016	ES 1986-553504	19860326
ES 553505	A1	19871016	ES 1986-553505	19860326
US 5496927	A	19960305	US 1994-248847	19940525
US 5849866	A	19981215	US 1995-481666	19950607
US 6130315	A	20001010	US 1998-139009	19980824

PRIORITY APPLN. INFO.:

US 1985-697987	A	19850204
EP 1986-101437	A	19860204
US 1986-874721	B1	19860616
US 1988-267758	B1	19881101
US 1989-372162	B2	19890627
US 1990-540033	B1	19900619
US 1992-980141	B1	19921123
US 1993-102522	B1	19930804
US 1994-248847	A3	19940525
US 1995-481666	A3	19950607

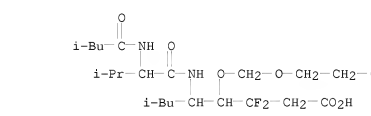
AB R1NHCHR2COX [R1 = H, amino protecting group, amino acid residue, peptide residue; R2 = side chain of an amino acid; X = H, (un)substituted

fluoroalkyl, etc.], useful as peptidase inhibitors (no data), were prepared Thus, CH2:CHCH2CF2CH(OH)CH(NH2)CH2CHMe2 was condensed with N-isovalerylvaline in THF containing dicyclohexylcarbodiimide at 23° for 15 h to give N1-(3,3-difluoro-2-hydroxy-1-isobutyl-5-hexenyl)-N2-isovalerylvalinamide.

IT 106771-24-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as peptidase inhibitor)

RN 106771-24-8 CAPLUS

CN Octanoic acid, 3,3-difluoro-4-[(2-methoxyethoxy)methoxy]-7-methyl-5-[[3-methyl-2-[(3-methyl-1-oxobutyl)amino]-1-oxobutyl]amino]- (CA INDEX NAME)



L10 ANSWER 59 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:554140 CAPLUS

DOCUMENT NUMBER: 105:154140

ORIGINAL REFERENCE NO.: 105:24849a,24852a

TITLE: Fluorocarbon resin foams

INVENTOR(S): Namba, Mutsusuke; Shirasaki, Osamu; Hirata, Tomohiko

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

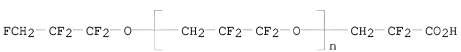
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 183022	A2	19860604	EP 1985-112857	19851010
EP 183022	A3	19861217		
R: DE, FR, GB, IT, NL				
JP 61091229	A	19860509	JP 1984-213664	19841011
JP 63020859	B	19880430		
JP 61162534	A	19860723	JP 1985-1866	19850109
JP 03002451	B	19910116		
JP 61171743	A	19860802	JP 1985-11491	19850123
JP 03002452	B	19910116		
EP 350969	A2	19900117	EP 1989-115501	19851010
EP 350969	A3	19900530		
R: DE, FR, GB, IT, NL				

PRIORITY APPLN. INFO.:

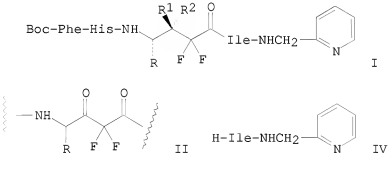
JP 1984-213664	A	19841011
JP 1985-1866	A	19850109
JP 1985-11491	A	19850123
EP 1985-112857	P	19851010

AB Undiscolored foams with uniform, fine cells, useful in covering elec. cables, are prepared by molding molten fluoropolymers in the presence of a depolymerizable polymers of (fluoro)olefins, polyethers, or C2-20 polycarbonyloxy compds and, optionally, nucleating agents. Thus, a mixture of 1 part BN (particle size 1-8μ) and 100 parts 82:18 C2F4-C3F6 copolymer was pelletized, mixed with 1.0 part Me methacrylate polymer (particle size <500μ) and extruded to a foam with expansion ratio 60%, uniform cells, and no discoloration.

IT 104677-65-8
RL: USES (Uses)
(in fluoropolymer foam manufacture)
RN 104677-65-8 CAPLUS
CN Poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)], α-(2-carboxy-2,2-difluoroethyl)-ω-(1,1,2,2,3-pentafluoropropoxy)- (9CI) (CA INDEX NAME)



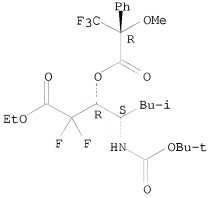
L10 ANSWER 60 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:553525 CAPLUS
DOCUMENT NUMBER: 105:153525
ORIGINAL REFERENCE NO.: 105:24757a,24760a
TITLE: Design and synthesis of potent and specific renin inhibitors containing difluorostatine, difluorostatone, and related analogs
AUTHOR(S): Thaisrivongs, Suvit; Pals, Donald T.; Kati, Warren M.; Turner, Steve R.; Thomasco, Lisa M.; Watt, William
CORPORATE SOURCE: Upjohn Co., Kalamazoo, MI, 49001, USA
SOURCE: Journal of Medicinal Chemistry (1986), 29(10), 2080-7
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 105:153525
GI



AB Title peptides I (Boc = Me3CO2C; R = CH2CHMe2, CH2Ph, cyclohexylmethyl, R1 = OH, R2 = H; R = CH2CHMe2, R1 = H, R2 = OH or R1R2 = O) and II (R = CH2CHMe2, CH2Ph, cyclohexylmethyl) were prepared as renin inhibitors. Thus, the Reformatskii reaction of L-Me2CHCH2CH(NHBoc)CH2OH with BrCF2CO2Et in the presence of Zn under sonicating conditions gave Me2CHCH2CH(NHBoc)CH(OH)CF2CO2Et (III) as a mixture of the (3R, 4S)- and (3S, 4S)-diastereoisomers, whereas only (3R, 4S)-III was obtained from the above reaction when it was carried out under refluxing conditions. (3R, 4S)-III was coupled with isoleucinamide IV by DCC/HOBt to give the dipeptide, which was converted into I (R = CH2CHMe2, R1 = OH, R3 = H) (V) by stepwise peptide couplings in solution V is an effective inhibitor of human plasma renin, whereas its 3S-epimer (I; R = CH2CHMe2, R1 = H, R2 = OH) exhibited a 60-fold reduction in inhibitory activity. I (R = CH2CHMe2, R1R2 = O) is a more effective inhibitor of renin than the corresponding

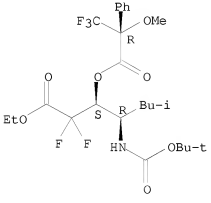
nonfluorinated compound
IT 103322-62-9P 103420-30-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 103322-62-9 CAPLUS
CN Benzeneacetic acid, α-methoxy-α-(trifluoromethyl)-,
2-[[(1,1-dimethylethoxy)carbonyl]amino]-1-(2-ethoxy-1,1-difluoro-2-
oxoethyl)-4-methylpentyl ester, [1R-[1R*(R*),2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 103420-30-0 CAPLUS
CN Benzeneacetic acid, α-methoxy-α-(trifluoromethyl)-,
2-[[(1,1-dimethylethoxy)carbonyl]amino]-1-(2-ethoxy-1,1-difluoro-2-
oxoethyl)-4-methylpentyl ester, [1S-[1R*(S*),2S*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 61 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:543602 CAPLUS
DOCUMENT NUMBER: 105:143602
ORIGINAL REFERENCE NO.: 105:23005a,23008a
TITLE: Etchant composition
INVENTOR(S): Fujii, Tsuneo; Deguchi, Takayuki; Tamaru, Shinji
PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

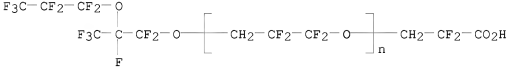
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 182306	A2	19860528	EP 1985-114526	19851115
EP 182306	A3	19880427		
EP 182306	B1	19910724		
R: DE, FR, GB				
JP 61270381	A	19861129	JP 1985-259205	19851118
JP 63045461	B	19880909		
US 4725575	A	19880216	US 1986-908943	19860916
PRIORITY APPLN. INFO.:			JP 1984-242648 A	19841117
			US 1985-798407 A2	19851115

AB An etchant for etching a Cr or Cr oxide layer (e.g., in the preparation of masks for transferring patterns to semiconductor wafers) is composed of a Ce(IV) salt, a nonionic or anionic F-containing surfactant, H2O, and, optionally, ≥1 of HClO4, HOAc, H2SO4, HNO3, HCl, and their salts. The etchant can homogeneously etch a resist pattern having both wide and narrow gaps on a Cr or Cr oxide layer.

IT 104335-43-5
RL: USES (Uses)
(etchant containing, for etching chromium or chromium oxide for mask preparation)

RN 104335-43-5 CAPLUS

CN Poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)], α-(2-carboxy-2-difluoroethyl)-ω-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]-, potassium salt (9CI) (CA INDEX NAME)



● K

L10 ANSWER 62 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:534494 CAPLUS
DOCUMENT NUMBER: 105:134494
ORIGINAL REFERENCE NO.: 105:21719a,21722a
TITLE: Fluoroacyl peroxides
INVENTOR(S): Oka, Masahiko; Morita, Shigeru
PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 186215	A2	19860702	EP 1985-116622	19851227
EP 186215	A3	19871104		
EP 186215	B1	19890816		
R: DE, FR, GB				
JP 61152652	A	19860711	JP 1984-278997	19841227
JP 63044744	B	19880906		

US 4654444	A	19870331	US 1985-813545		19851226
US 4663407	A	19870505	US 1986-909277		19860919
PRIORITY APPLN. INFO.:			JP 1984-278997	A	19841227
			US 1985-813545	A3	19851226

OTHER SOURCE(S): MARPAT 105:134494

AB The peroxides [RO(CH2CF2CF2O)nCH2CF2C(O)O]2 [R = C1-10 (halo)hydrocarboyl; n = 0-3) are useful as initiators for low-temperature polymerization of vinyl compds.

Thus, [(CH3)3COCH2CF2C(O)O]2 (I) was prepared by adding 1.0 g Na2O2 and 5.0 g (CH3)3COCH2CF2COCl to 50 g 20% aqueous NaCl at -20° over 30 min. The short half-life of I [21 min at 20°] makes it suitable for polymerization at -10° to +30°.

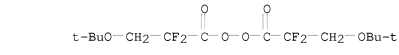
IT 104360-91-0

RL: CAT (Catalyst use); USES (Uses)

(catalyst, for low-temperature polymerization, manufacture of)

RN 104360-91-0 CAPLUS

CN Peroxide, bis[3-(1,1-dimethylethoxy)-2,2-difluoro-1-oxopropyl] (9CI) (CA INDEX NAME)



L10 ANSWER 63 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:69315 CAPLUS

DOCUMENT NUMBER: 104:69315

ORIGINAL REFERENCE NO.: 104:11113a,11116a

TITLE: Halogen-containing polyether

INVENTOR(S): Ohsaka, Yohnosuke; Tohzuka, Takashi; Takaki, Shoji

PATENT ASSIGNEE(S): Daikin Kogyo Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 44 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

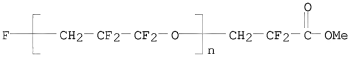
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 148482	A2	19850717	EP 1984-116003	19841220
EP 148482	A3	19851227		
EP 148482	B1	19920325		
R: DE, FR, GB, IT, NL				
JP 60137928	A	19850722	JP 1983-251069	19831226
JP 63032812	B	19880701		
JP 60202122	A	19851012	JP 1984-58877	19840326
JP 63043419	B	19880830		
JP 61113616	A	19860531	JP 1984-235610	19841107
JP 01060170	B	19891221		
EP 415462	A1	19910306	EP 1990-119306	19841220
EP 415462	B1	19960508		
R: DE, FR, GB, IT, NL				
CA 1259443	A1	19890912	CA 1984-470995	19841224
SU 1806149	A3	19930330	SU 1984-3839427	19841225
US 4845268	A	19890704	US 1986-940191	19861209
US 4973742	A	19901127	US 1989-338036	19890414
RU 2073692	C1	19970220	RU 1991-4895780	19910626
RU 2107074	C1	19980320	RU 1992-5010940	19920226
PRIORITY APPLN. INFO.:			JP 1983-251069 A	19831226
			JP 1984-58877 A	19840326

JP 1984-235610 A 19841107
US 1984-684345 A1 19841220
US 1986-940191 A3 19861209

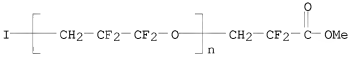
AB Chemical and thermally stable halogen-containing polyethers useful as lubricants
are prepared by ring-opening polymerization of 2,2,3,3-tetrafluorooxetane (I) and
optional fluorination and/or chlorination. Thus, F(CH2CF2CF2O)nCH2CF2COF (II) was prepared by ring-opening polymerization of I in the presence of CsF. A
reactor containing 1.5 kg II was heated to 100°-120°. The II
was irradiated with a Hg lamp as a mixture of F(g) and N(g) was fed to the reactor at 1 L/min for 100 h, and then N was fed at 2 L/min for 50 h. A viscous fluoropolymer (1.8 kg) having CF2CF2CF2O repeating units, with kinematic viscosity at 40° (ν) 65 cS, was formed. A rotary
vacuum pump using the viscous fluoropolymer as lubricant was used in an apparatus to form O, H, and CCl4 plasmas. After 30 days operation the pump motor showed no current irregularity, and the lubricant still had ν 65 cS.

IT 99488-69-4P 99488-70-7P 99488-71-8P
99488-72-9P
RL: PREP (Preparation)
(oligomeric, preparation of, chemical and thermally stable)

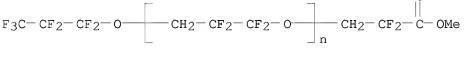
RN 99488-69-4 CAPLUS
CN Poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)], α-(2,2-difluoro-3-methoxy-3-oxopropyl)-ω-fluoro- (9CI) (CA INDEX NAME)



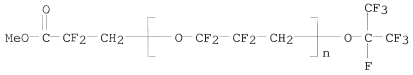
RN 99488-70-7 CAPLUS
CN Poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)], α-(2,2-difluoro-3-methoxy-3-oxopropyl)-ω-iodo- (9CI) (CA INDEX NAME)



RN 99488-71-8 CAPLUS
CN Poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)], α-(2,2-difluoro-3-methoxy-3-oxopropyl)-ω-(heptafluoropropoxy)- (9CI) (CA INDEX NAME)



RN 99488-72-9 CAPLUS
CN Poly[oxy(1,1,2,2-tetrafluoro-1,3-propanediyl)], α-(2,2-difluoro-3-methoxy-3-oxopropyl)-ω-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethoxy]- (9CI) (CA INDEX NAME)



L10 ANSWER 64 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:19352 CAPLUS
DOCUMENT NUMBER: 104:19352
ORIGINAL REFERENCE NO.: 104:3249a,3252a
TITLE: 2,2-Difluoropropionic acid derivatives
INVENTOR(S): Ohsaka, Yohnosuke; Tohzuka, Takashi; Takaki, Shoji; Negishi, Yoshio; Kohno, Satoru
PATENT ASSIGNEE(S): Daikin Kogyo Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 148490	A1	19850717	EP 1984-116103	19841221
EP 148490	B1	19900516		
R: DE, FR, GB, IT				
JP 60136536	A	19850720	JP 1983-251070	19831226
JP 01049340	B	19891024		
JP 61130254	A	19860618	JP 1984-253884	19841129
JP 02037904	B	19900828		
US 4719052	A	19880112	US 1984-684344	19841220
EP 258911	A1	19880309	EP 1987-113971	19841221
EP 258911	B1	19901031		
R: DE, FR, GB, IT				
CA 1293739	C	19911231	CA 1984-470916	19841221
JP 02223538	A	19900905	JP 1990-6575	19900116
JP 05002660	B	19930113		
CA 1318327	C2	19930525	CA 1991-616011	19910227

PRIORITY APPLN. INFO.:
JP 1983-251070 A 19831226
JP 1984-253884 A 19841129
CA 1984-470916 A3 19841221
EP 1984-116103 P 19841221

OTHER SOURCE(S): CASREACT 104:19352; MARPAT 104:19352

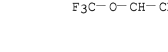
AB FCH2CF2COF (I) and other 2,2-difluoropropionic acid derivs. RCH2CF2COR1 [R = Cl, Br, iodo, R2O, R2CO2, R3CH2CF2CF2O; R1 = F, R2O, R4CH2O; R2 = (non)halogenated aliphatic hydrocarbyl, (un)substituted aromatic hydrocarbyl; R3 = F, Cl, Br, iodo, R2O, R2CO2; R4 = aliphatic perfluorohydrocarbyl] were prepared by ring opening of 2,2,3,3-tetrafluorooxetane (II) in the presence of a catalyst. Thus, 13 g II, 1.8 g KF, and 15 mL diglyme were stirred at 150° for 8 h to give, after distillation, 12.8 g of a product mixture containing 65 mol % I. A similar reaction of II with 28 weight% NaOMe in MeOH gave 47.5% MeOCH2CF2CO2Me.

IT 99497-39-9P 99497-40-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, from tetrafluorooxetane)

RN 99497-39-9 CAPLUS
CN Propanoic acid, 2,2-difluoro-3-methoxy-, methyl ester (CA INDEX NAME)

RN 99497-40-2 CAPLUS
CN Propanoic acid, 2,2-difluoro-3-(2,2,3,3,3-pentafluoropropoxy)-, 2,2,3,3,3-pentafluoropropyl ester (CA INDEX NAME)

L10 ANSWER 65 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:404937 CAPLUS
DOCUMENT NUMBER: 91:4937
ORIGINAL REFERENCE NO.: 91:923a,926a
TITLE: Study of polyfluoracyl fluorides formed in the electrochemical fluorination of methyl 3-methoxypropionate
AUTHOR(S): Berenblit, V. V.; Nikitin, V. A.; Sass, V. P.; Senyushov, L. N.; Starobin, Yu. K.; Tsyganov, Yu. V.
CORPORATE SOURCE: USSR
SOURCE: Zhurnal Organicheskoi Khimii (1979), 15(2), 284-92
CODEN: ZORKAE; ISSN: 0514-7492
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Products of electrochem. fluorination of MeOCH2CH2CO2Me (polyfluoroacyl fluorides) were investigated by condensing them with MeOH, followed by rectification of the Me esters formed and study of them via 19F and H NMR and mass spectra.
IT 70411-04-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 70411-04-0 CAPLUS
CN Propanoic acid, 2,2,3-trifluoro-3-(trifluoromethoxy)-, methyl ester (CA INDEX NAME)



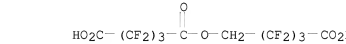
L10 ANSWER 66 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:529011 CAPLUS
DOCUMENT NUMBER: 89:129011
ORIGINAL REFERENCE NO.: 89:19953a,19956a
TITLE: Reduction of perfluorocarboxylic acid anhydrides to 1,1-dihydroperfluoro alcohols
AUTHOR(S): Kolomnikova, G. D.; Kalinkin, M. I.; Tskhurbaeva, Z. Ts.; Parnes, Z. N.; Kursanov, D. N.
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1978), (7), 1681-3
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Et3SiH reduced (RCO)2O [1; R = CF3, C3F7; R2 = (CF2)3] to the

corresponding RCH2OH and HO2C(CF3)2CH2OH in 60-80% yield and lesser amts. of RCH2O2CR. Hydrogenation of I (R = same) with PtO2, (Ph3P)2PtCl2 or Ru(O2CCF3)3 gave lower yields of same products.

IT 67710-61-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 67710-61-6 CAPLUS

CN Pentanedioic acid, hexafluoro-, mono(4-carboxy-2,2,3,3,4,4-hexafluorobutyl) ester (9CI) (CA INDEX NAME)



L10 ANSWER 67 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:442477 CAPLUS

DOCUMENT NUMBER: 89:42477

ORIGINAL REFERENCE NO.: 89:6569a,6572a

TITLE: Functional fluorine derivatives by transformation of a 1H-perfluoroalkyl group

INVENTOR(S): Wakselman, Claude; Nguyen Thoai

PATENT ASSIGNEE(S): Agence Nationale de Valorisation de la Recherche, Fr.

SOURCE: Fr. Demande, 10 pp.
CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2341559	A1	19770916	FR 1976-4711	19760220
FR 2341559	B1	19790824		

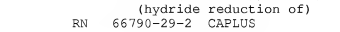
PRIORITY APPLN. INFO.: FR 1976-4711 A 19760220

AB R1(CF2)n+1CHF2 (R1 = F or protected organic group, n is an integer) were treated with M1/mNR2 (M = alkali or alkaline earth metal, m = valence of M, R = hydrocarbon group) and the products hydrolyzed by acid to give the resp. R2(CF2)nCHFCONR2 (R2 = F or organic group). The reaction of PhCH2OCH2(CF2)3CHF2 with Et2NH and BuLi and addition of concentrated HCl in H2O gave PhCH2OCH2(CF2)2CHFCONEt2.

IT 66790-29-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydride reduction of)

RN 66790-29-2 CAPLUS

CN Pentanoic acid, 2,3,3,4,4-pentafluoro-5-(heptyloxy)- (CA INDEX NAME)



L10 ANSWER 68 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:496334 CAPLUS

DOCUMENT NUMBER: 83:96334

ORIGINAL REFERENCE NO.: 83:15116h,15117a

TITLE: Haloacrylic acids. IV. Reaction of Grignard reagents with substituted methyl-2,3,3-trifluoroalkanoates

AUTHOR(S): Sendrik, V. P.; Paleta, Oldrich; Dedek, Vaclav

CORPORATE SOURCE: Inst. Chem. Technol., Prague, Czech.
SOURCE: Collection of Czechoslovak Chemical Communications (1975), 40(5), 1542-9
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Reaction of MeMgI with EtOCHMeCF2CHFCO2Me at 35° gave EtOCHMeCF2CHFCMe2OH (I). The reaction at -35° gave a mixture of I and EtOCHMeCF2CHFCOMe. Analogous results were obtained with EtMgBr or in the reaction of RCF2CHFCO2Me (II) (R = 2-tetrahydrofuryl throughout) with MeMgI or EtMgBr. Reaction of II with Me2CHMgBr gave a mixture of RCF2CHFC(OH)(CHMe2)2 and (by reduction) RCF2CHFCH(OH)CHMe2. When treated with P2O5, I, EtOCHMeCF2CHFCEt2OH, and RCF2CHFCMe2OH (III) gave EtOCHMeCF2CHFCMe:CH2 (IV), EtOCHMeCF2CHF2CHFCEt:CHMe, and RCF2CHFCMe:CH2, resp.; with SOCl2, I gave I and IV whereas III yielded RCF2CHFCMe2Cl.

IT 52916-69-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(Grignard reactions of)

RN 52916-69-5 CAPLUS

CN Pentanoic acid, 4-ethoxy-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)

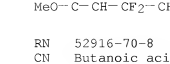
L10 ANSWER 69 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1974:449032 CAPLUS
DOCUMENT NUMBER: 81:49032
ORIGINAL REFERENCE NO.: 81:7835a,7838a
TITLE: Photochemical addition of ethers to methyl trifluoroacrylate
AUTHOR(S): Sendrik, V. P.; Paleta, Oldrich; Dedek, Vaclav
CORPORATE SOURCE: Vys. Sk. Chem. Technol., Prague, Czech.
SOURCE: Collection of Czechoslovak Chemical Communications (1974), 39(4), 1061-71
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In the uv-initiated 1:1 adduct formation of ethers with F2C:CFCO2Me, the reactivity decreased in the order:THF > 4-methyl-1,3-dio-xane > 1,3-dioxolane > Et2O > MeOCH2CH2OMe > 1,4-dioxane.

IT 52916-69-5P 52916-70-8P 52916-71-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 52916-69-5 CAPLUS

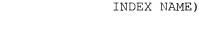
CN Pentanoic acid, 4-ethoxy-2,3,3-trifluoro-, methyl ester (CA INDEX NAME)



RN 52916-70-8 CAPLUS

CN Butanoic acid, 2,3,3-trifluoro-4-(2-methoxyethoxy)-, methyl ester (CA INDEX NAME)

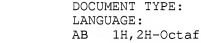
RN 52916-71-9 CAPLUS
CN Pentanoic acid, 2,3,3-trifluoro-4,5-dimethoxy-, methyl ester (9CI) (CA INDEX NAME)



L10 ANSWER 70 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1971:124920 CAPLUS
DOCUMENT NUMBER: 74:124920
ORIGINAL REFERENCE NO.: 74:20183a,20186a
TITLE: Polyfluorocycloalkenes. IX. Reactions of 1H,2H-octafluorocyclohexene, -hexafluorocyclopentene, and -tetrafluorocyclobutene with methanol under ionic conditions
AUTHOR(S): Stephens, Robert; Clayton, A. B.; Collins, D.; Tatlow, John C.
CORPORATE SOURCE: Chem. Dep., Univ. Birmingham, Birmingham, UK
SOURCE: Journal of the Chemical Society [Section] C: Organic (1971), (7), 1177-82
CODEN: JSOOAX; ISSN: 0022-4952
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 1H,2H-Octafluoro-cyclohexene reacted with NaOMe-MeOH to give 1H,1H,2H-2-methoxyoctafluorocyclohexane, 1H,6H-6-methoxyheptafluoro-cyclohexene, 1H,6H - 2 - methoxyheptafluorocyclohexene, and 1H,2H-3,3-dimethoxyhexafluorocyclohexene. Similarly, 1H,-2H - hexafluorocyclopentene gave 1H,1H,2H - 2 - methoxyhexa-fluorocyclopentane and 1H,5H - 5 - methoxypentafluorocyclo-pentene, and 1H,2H-tetrafluorocyclobutene gave 1H,4H-4-methoxytrifluorocyclobutene. The results are consistent with an addition-elimination mechanism and not a direct allylic substitution.
IT 32670-08-9P 32670-09-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32670-08-9 CAPLUS
CN Hexanedioic acid, 2,2,3,3,4,4-hexafluoro-5-methoxy-, compd. with phenylmethyl carbamimidothioate (1:2) (CA INDEX NAME)

CM 1

CRN 45213-92-1
CMF C7 H6 F6 O5



CM 2

CRN 621-85-2

CMF C8 H10 N2 S

RN 32670-09-0 CAPLUS
CN Glutaric acid, 2,2,3,3-tetrafluoro-4-methoxy-, compd. with 2-benzyl-2-thiopseudourea (1:2) (8CI) (CA INDEX NAME)

CM 1

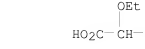
CRN 45153-12-6
CMF C6 H6 F4 O5

CM 2

CRN 621-85-2
CMF C8 H10 N2 S

L10 ANSWER 71 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1963:66124 CAPLUS
DOCUMENT NUMBER: 58:66124
ORIGINAL REFERENCE NO.: 58:11227d-f
TITLE: Nucleophilic displacement reactions of halogenated cyclobutenes
AUTHOR(S): Park, J. D.; Wilson, L. H.; Lacher, J. R.
CORPORATE SOURCE: Univ. of Colorado, Boulder
SOURCE: Journal of Organic Chemistry (1963), 28, 1008-12
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB The nucleophilic displacement reactions of Ia (R = H, R1 = R2 = F) (I), Ia (R = Cl, R1 = R2 = F) (II), Ia (R = R1 = Cl, R2 = F) (III), and Ia (R = R1 = R2 = Cl) (IV) were carried out with ethanolic KOH. I yielded 3-ethoxy-3,4,4. trifluorocyclobutene and 3,3-diethoxy-4,4-difluorocyclobutene (allylic substitution without rearrangement). II and III both gave identical rearranged products, 1-fluoro-2-chloro-3-ethoxy-4,4-difluorocyclobutene, and IV yielded Ia (R = Cl, R1 = R2 = OEt) (allylic substitution).
IT 10117-86-9P, Succinic acid, 3-ethoxy-2,2-difluoro-, dipotassium salt
RL: PREP (Preparation)
(preparation of)
RN 10117-86-9 CAPLUS
CN Butanedioic acid, 3-ethoxy-2,2-difluoro-, dipotassium salt (9CI) (CA

INDEX NAME)



L10 ANSWER 72 OF 72 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1955:36084 CAPLUS
DOCUMENT NUMBER: 49:36084
ORIGINAL REFERENCE NO.: 49:6987e-f
TITLE: Fluorinated organic bromides
INVENTOR(S): Conly, James C.
PATENT ASSIGNEE(S): Douglas Aircraft Co., Inc.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2678953		19540518	US 1950-190251	19501014

AB Bromoperfluorocarbons are prepared from the Ag salt of a perfluoro acid and Br. n-C3F7CO2H in Et2O treated with excess powdered Ag2CO3, the Et2O decanted after the CO2 evolution, and the solution evaporated yields almost quant. n-C3F7CO2Ag (I), which, stirred with the addition of Br, evolves CO2 and C3F7Br, b. 12-13°. The use of these compds. as chain-initiating and -terminating agents, fire-resistant materials, and solvents is suggested.

IT 428-89-7, Propionic acid, 2,2-difluoro-3-methoxy-, silver salt
(reaction with Br, and product therefrom)

RN 428-89-7 CAPLUS

CN Propanoic acid, 2,2-difluoro-3-methoxy-, silver(1+) salt (9CI) (CA INDEX NAME)

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